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THE HOSPITAL WORLD

(Incorporating The Journal of Preventive Medicine and Sociology)

THE OFFICIAL ORGAN
OF
THE CANADIAN HOSPITAL ASSOCIATION

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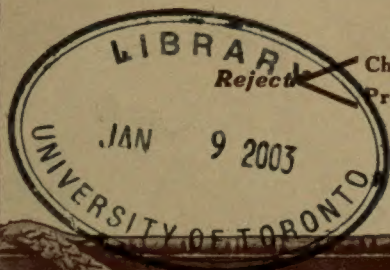
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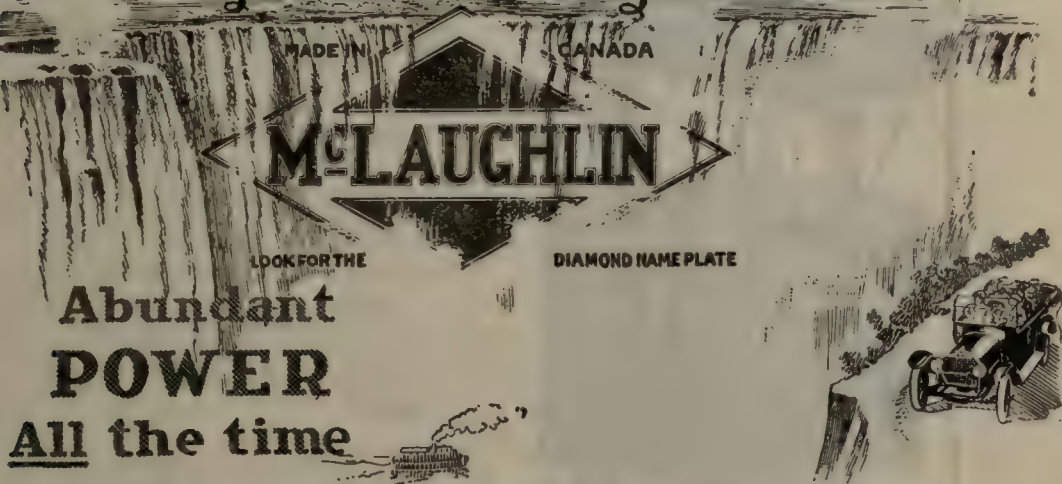
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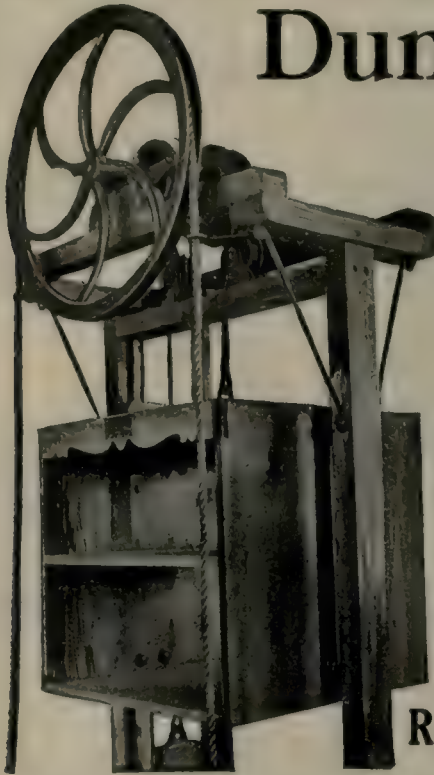
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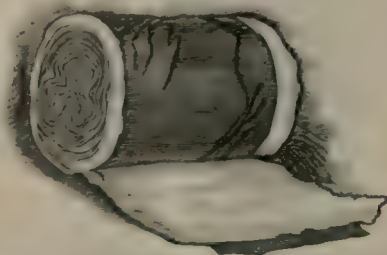
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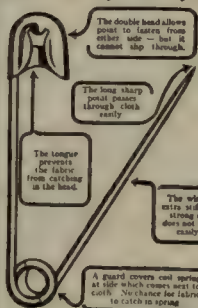


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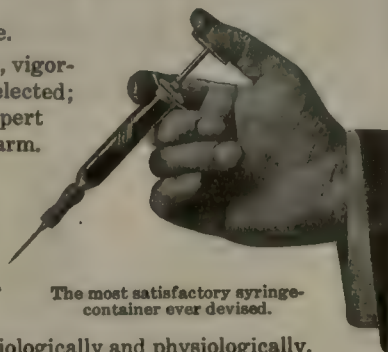
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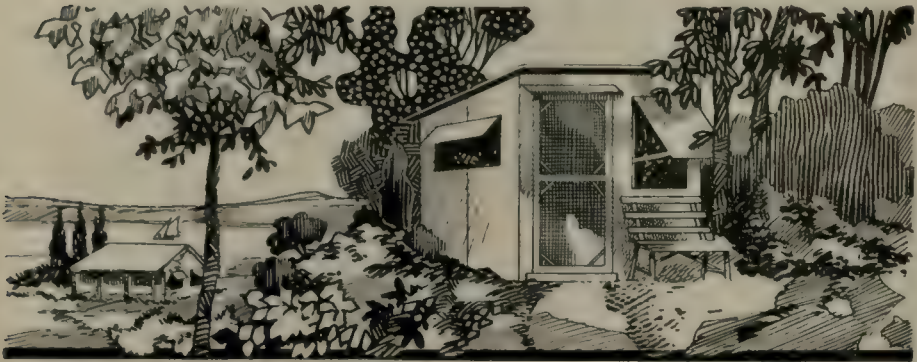
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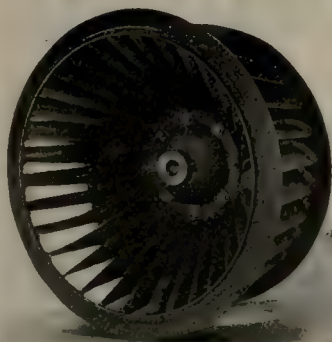
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The Hospital World

(Incorporating The Journal of Preventive Medicine and Sociology)

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Editorials

PROGRESS IN PREVENTIVE MEDICINE

THE recent movement toward the establishment of international health legislation is viewed by Miss Ida Tarbell as one of the marked signs of the times. In

her present "efficiency" campaign this gifted investigator of civic and economic conditions lays special stress on what is being done in large manufacturing industries to educate and maintain the employees in good health.

In a recent address she gave instances of large industrial institutions in various cities where physical examination, at first resented, is now welcomed by the thousands of employees, who have learned to look upon good health as an essential to efficient work.

Leaders in social and economic progress to-day are beginning to see that the basis for all future development lies in an education of the public to a degree sufficient to secure the enforcement of health laws.

Time was when any individual could be sick unto himself. The fact concerned no one outside his own household. To-day the sickness of the one individual reaches out to the community, the state, the nation—even to the inter-nations. It is impossible to take up leading journals, lay and professional, without noting in their pages how rapidly the larger conception of public health is spreading. The position of medical health officer a few years ago was looked upon as one of little importance; serviceable merely in case of an outbreak of smallpox or similar epidemic. To-day the health officer and his staff are autocrats with large civic authority. Behind them are the state and national health boards, with the state and national health laws taking rapid form as the discoveries of

the laboratories concerning the sources and control of disease are made public.

Further evidence of the growing appreciation of the importance of public health work is shown in the more rigid enforcement by the courts of state health laws. Quite recently in several parts of the country civil suits have been brought against violators of these—a careless milkman, a manufacturer of food supplies containing ptomaine poisoning—a railway company that created pools of stagnant water causing malarial fever. And in each instance the court upheld the plaintiff and awarded damages.

A newer and keener public interest in preventive medicine is doubtless largely due to the wonderful results of recent laboratory investigation and their educative influence upon the people.

The new conception of health—that it is something that may and should be retained rather than regained—is working a transformation in the industrial and economic world, and through these upon national life.

PROMPTITUDE

PROBABLY with the excuse that their services are gratuitous, many members of hospital visiting staffs are too slow in seeing patients admitted to their care, thus neglecting a duty they would perform with alacrity for members of their private clientele.

Visiting staffs of hospitals where internes serve are the worst offenders in this respect, since they depend too often on the judgment of an inexperienced

man. In hospitals where the resident system is in vogue there is less trouble in this respect, since there is usually a man of at least a couple of years' experience within call in case of urgency.

In the majority of cases admitted, the average intern is able to make the diagnosis, and report the same and the condition of the patient to his chief, from whom he may receive instructions as to treatment and care until the next visit of his superior. But in not a few cases the interne is unable to make a diagnosis or properly appreciate the gravity of the case. If a visiting physician has an interne of this sort it is the duty of the visiting physician to visit his patients as soon as admitted and make a thorough examination of them. If he, in turn, is baffled in his diagnosis, he should at once call into consultation one or more professional brethren. If the case has a surgical aspect a surgeon should be invited to examine the patient. If any of the special senses are involved a specialist should be called. If chemical, bacteriological or radiographic examinations are required such should be made at the earliest possible moment.

There should be crisp co-ordination of all the necessary services. Too often there is deleterious delay in making these references. But in good hospitals, as in good business houses, prompt service makes for efficiency and popularity.

In no place is the old adage more needed of enforcement than in connection with the duties of the hospital visiting staff: "Never put off till to-morrow what should be done to-day."

LIGATURES

Nor everybody knows that catgut is not catgut, and that silkworm-gut is not silkworm-gut. What is called catgut is made from the small intestine of sheep or goats; and silkworm-gut is silk.

The German variety is said to be the best gut; the American gut suffers by comparison. The reason for this is thus explained. The gut from the raw material used by the Germans is secured from sheep and goats which exist on scanty feeding in the mountainous and rocky districts. The animals are spare and wiry. The intestinal tissue of the well favored American sheep, which feed on the rich pastures here, is not nearly so tough. It is much more friable. Again, American gut is artificially dried and prepared with chemicals. The German gut goes through the slow process of drying in the sun, and is not subjected to the detrimental chemical action.

The cultivation of the silkworm has been tried in America at intervals by different people, but thus far, unsuccessfully. Our best silkworm-gut comes from Spain, where the worm flourishes. We are unable to say why silkworms cannot be grown in America. Surely means can be devised for combating the pests and scourges incident to their propagation in this country.

More and more are hospitals in America sterilizing their own catgut. Certain large hospitals have saved in one year over three thousand dollars by doing this. The process is simple, and can be carried

out by any intelligent nurse. The results can easily be tested by the pathologist of a hospital.

The chief danger, perhaps, in the use of catgut lies in the chance employment of a gut which has been diseased during life—a diseased intestine of a diseased sheep.

In one instance sepsis in the surgical department of a well known hospital was traced to this cause. The gut was not prepared by the hospital itself.

Four years ago only four hospitals in Chicago were preparing their catgut; to-day, it is stated, that over twenty-four hospitals in that city prepare their own catgut. Before long the custom will become fairly universal. It is a great economy and should speedily become a general practice in our hospitals.

A FURTHER WORD

The American Journal of Clinical Medicine of a recent issue comments favorably on an article on the Mayo clinic by Dr. John N. E. Brown which appeared in the May number of this journal. Following full quotation of the article our contemporary says:

“Of course Doctor Mayo is not opposed to the work done by the diagnostic laboratories. Quite the contrary. The marvelous institution which he maintains, in association with his brother, is equipped with every diagnostic refinement possible, and their laboratories are doing much beautiful work of this char-

acter. Doctor Mayo believes in the laboratory, but he does not believe that it should be 'the whole show.'

"Neither do we. The fact is, no good doctor can practice medicine by proxy. He must know what he is about; he must be trained in mind and skilful of hand. He must be able to see the things which other men cannot see and feel the things which other men cannot feel. He must have a broad grasp of every situation and of every problem. The eye which is constantly glued to the objective of a microscope is likely to have a restricted field of vision, and it is this narrowness (of mind rather than of eye) to which Doctor Mayo objects. The laboratory has become an essential, and no doctor should try to get along without it; but he should look upon it as an adjunct—and an exceedingly valuable adjunct—to his work. That's the moral.

"Use the laboratory every opportunity you can get to do so, but cultivate for yourself a broad vision so that seeing all you can understand all."

Original Contributions

EFFICIENCY IN THE CARE OF THE PATIENT

BY MINNIE GOODNOW, R.N.

WE are nowadays hearing much about Efficiency. We are even beginning to class it among our duties. A few years ago "inefficient" was at worst a term of pity. Now it has become a term of contempt. On the other hand, "efficient" has become a word of highest praise.

What is the exact definition of efficiency?

It consists, the experts tell us, of five things, not one or two of the five, but *all* of them. It is:

First, producing the most work.

Second, producing the best work.

Third, doing work in the easiest way.

Fourth, doing work by methods which conserve health.

Fifth, doing work by methods which prolong life.

Think over this combination and you will see why we call Efficiency a new science. It is because it takes hold of the *entire* problem, not a portion of it.

We have long worked at one or more of the parts of efficiency. We have long thought that we knew how to do the most work or the best work—at the expense of life or health. We have long thought that we knew the easiest way of doing some things. We have done much in the prevention of disease and in the prolongation of life. But we have never been able to get them all together, even though we felt subconsciously that there ought to be some way in which it might be done.

There have recently come into the industrial and business worlds so-called Efficiency engineers, who have shown how to increase both quantity and quality of work while keeping the workers happy and healthy. They have proved objectively

that one may take less time, less material, less labor, and fewer men than under the old regime, and merely by using new methods produce greater results.

Bricklaying, one of the oldest trades on earth, has been revolutionized by Mr. Gilbreth, who speaks to us later in this convention. Using his methods, thirty men may now do the work which has always required one hundred, and if anything do it better.

In factory work it has been proven possible to double output without adding a man or a machine, simply by changing methods of work.

In machine shops (presenting a more complicated problem) production has been trebled and quadrupled.

Phenomenal successes in many lines have been achieved through this startlingly simple thing, Efficiency.

The methods by which these achievements are brought about are what the experts call Scientific Management. It is thoroughly scientific because it takes up the *whole* problem of doing work, and it is, in its last analysis, common sense.

What are these methods and how do they apply to the care of patients, the thing in which hospitals are primarily interested?

Hospitals, quite as much as the business world, have been hampered by tradition, so that we find it very difficult to map out the sensible course and see when we should break away from old methods. If a thing has always been done a certain way, and has been fairly satisfactory, there seems no reason to change it. There appear to be some things which *cannot* be done, some wrongs which are in the nature of things and *must* exist, so that it seems foolish to waste time over impossibilities.

So, too, reasoned our fathers but a generation ago, and thereby assured themselves that automobiles were impractical and that airships or wireless telegraphy were but dreams. We have already accepted them as commonplaces. And so it comes about that whenever you hear an elder saying, "It is impossible," you may know that not far away some youngster is at work doing that very thing.

Times have changed. Life has become strenuous to the breaking point. Our very recognition of these tremendous problems proves that they have a solution. There are arising daily men and women with vision, finding the way out. They are the practical philosophers who are leading us out of the wilderness.

One of the first things which they have to teach us is co-operation. The day of individualism is passing. The day of co-operation is dawning. Men are finding out that ten thousand working alone may do much, but that one thousand working together can do more. Competition may have been stimulating in an individualistic age, but in this era which has been called "the century of social consciousness" it is a back number, an antiquated tool. Analyze present-day problems. Watch the people who are solving them. No one is succeeding who works single-handed, but only those who have learned to co-operate.

Graham Taylor, president of the National Conference of Charities and Corrections, said in his recent address to that body, "Instances multiply which demonstrate not only the practicability and efficiency of co-operation, but also clearly show that so great has become the interdependence of public and volunteer agencies, officials and private citizens, that one cannot succeed if the other fails."

With these things in mind, let us examine some of our most marked inefficiencies and endeavor to search out their remedies. There are three special things which the public has long dimly felt as hospital inefficiencies, but which have only recently been seen as definite facts. They are all parts of the care of the patient and intimately concern his welfare; and they are also parts of hospital organization. They are:

1. Treating cases rather than people.
2. Failure to provide for the middle-class patient.
3. Unsatisfactory training of nurses.

In the first instance, we have been trying to establish health without regard to the sick person's environment. We have been considering him as an individual rather than as a member of a family or neighborhood. Now that our social service workers have stirred us up to see what we were doing, we wonder why we have kept on doing it so long. Many of us are awake to

this condition and its remedy, but there are some hundreds of us who are slow at getting into line, or think the task too great a one.

Social service in one form or another we must all adopt if we are to render anything like efficient service to our communities, and it is high time that we got away from our petty, inefficient struggling with one corner of a problem, and got at the whole thing. It must be done by co-operation with all existing agencies. The tremendous social problems which confront all hospitals can never be solved single-handed.

Think of the benefit to the country and to humanity if half of us went home from this convention and started social service even in the smallest way.

2. Failure to provide for the middle-class patient.

Most of our population belongs in the middle class, and as yet adequate or satisfactory care in illness has not been possible for them. In fact, we are rather worse off than were our grandfathers, since in the olden days neighbors came in and helped out, whereas now there seem to be no neighbors who can or will do it.

The community looks to its hospitals to take the initiative in such a matter. Perhaps we hospital people have been slow because, being in the middle class ourselves, we were too close to the problem to see it clearly. For twenty years and more we have *talked* about it, and innumerable solutions of the problem have been suggested, abandoned as impractical, or tried and failed. Why did they fail? Evidently because they attacked but one phase of the problem at a time, and did not fit in with the rest of it. None of them ever covered, or attempted to cover, the whole ground.

Of late there have come into this field also people with vision, dreamers who have begun to translate their dreams into reality. It looks as though they were succeeding. Why? Because they have realized that the problem was a many-sided one, and have had the courage to take it up as a whole.

Illness in a middle-class home means not simply the problem of the care of the patient himself. It means the loss of his work or of his wage. It means the withdrawal of help and the

addition of a burden. It means extra bills and less income. It means getting the cooking and laundry done. It means caring for the children and keeping them from disturbing the patient. It means care and encouragement during weary convalescence. It may mean taking up a new occupation or readjusting an entire family.

These conditions and problems can be but partially met by a moderate-priced bed in a hospital. They cannot be met by the individual alone, by the family alone, by a hospital working single-handed (even with a social service department), nor by a doctor, nor by a nurses' association, nor by an insurance company, and certainly not by a church or charitable organization. The problem is too complicated. All agencies must work together. Co-operation is the keynote of any success.

Last year we heard Mr. Richards Bradley tell of his vision of a complete scheme for the care of the middle-class patient. This year Miss Davis has told us more of how the vision is being worked out. The Albany Nursing Guild has been working along the same lines. The Detroit Home Nursing Association has been organized during the year and is on the way to success. Send for its circular of information and study its possibilities for your own community. Watch the work of these associations, and decide for yourselves whether the scheme be not a sensible, practical and possibly a *complete* solution of this vexed and pressing problem.

But what of the man or woman who is not disabled, but only half sick, hampered but not downed by disease, the man or woman who needs a thorough, skilled examination and a longer or shorter course of treatment to make him an independently useful citizen, who without this care may drift into dependence? The poor man may, free of charge, be looked over and treated at a dispensary by a surgeon, a stomach specialist, a neurologist, an eye specialist, an internal medicine man, and have half a dozen elaborate tests and examinations made. Why should it not be possible to do the same for the man who is ready to pay twenty-five dollars for similar service, but who cannot possibly afford the \$150 or \$200 which it would cost if paid for at all?

The director of one of our city dispensaries has had a vision of extending dispensary service, *for pay*, to the middle class.

Mr. Davis, of the Boston Dispensary, has established two evening clinics, aimed to be on a self-supporting basis, *with salaried medical staff*. Fifteen months ago an evening clinic for eye diseases was begun, and five months ago a men's clinic for genito-urinary diseases. The purpose of the clinic is to reach working people who are not able to afford the usual fees required for skilled medical care, and who cannot come in the morning without loss of wages. The fee charged is fifty cents a visit in the genito-urinary clinic, and in the eye clinic a dollar for the first visit and fifty cents thereafter. Medicines or glasses are provided at prices slightly above the cost of the material.

Both clinics have thus far demonstrated that they are reaching the class of patients desired. They have just paid their running expenses, not, however, including overhead charges. A third evening clinic, for syphilis, has recently been started on the same plan.

Does not this appear to be a very simple solution of a very great problem? Note that it requires co-operation.

3. Unsatisfactory training of nurses.

Evade it as we may, we know deep in our hearts that the training we are giving our nurses is not an unmixed success. Miss Mackenzie, of the Victorian Order of Canada, created a considerable stir when she stated recently that "nine-tenths of the students who enter our nurse training schools come out of them changed for the worse." She goes so far as to say, "Dozens of bright, promising women, filled with missionary spirit, eager to help someone to be better, happier and healthier, issue forth from the so-called training schools warped, narrow, mercenary and blase, all their ideals gone, and in most instances gone beyond recall."

While we may not share Miss Mackenzie's extreme view, we know that there is a modicum of truth in what she says. All over the country there is a cry of protest against the unsatisfactoriness and inefficiency of the nurse who is doing private duty. We who train her criticize her as severely as the rest. Even while we contend that it is personality which we are criticizing, we realize that personality is the expression of character, and that character is to a degree formed by train-

ing. Yet we go on saying that we *train* nurses for private duty.

We also contend that hospitals prepare their students for executive positions. There are at the present time two hospitals in the country giving a course in administrative work, these having a total of twelve students per year!

We are claiming to prepare nurses for the many fields of service which lie open before them, district work, school nursing, store and factory nursing, insurance nursing, public health work, Red Cross work, and others. Few of us mention these branches to our nurses while they are in training or give them even one talk on each. Yet we continue to say that we are training nurses for them. Possibly we are in the sense that a boy is being trained for a business career when he is taught to read and write.

Miss Nutting, who is considered an authority in nursing matters, in a recent paper read before the New York League of Nursing Education, contends that we are not giving adequate training nor a square deal to our nurses. She suggests for remedy, not the so-called "raising of the standard," by making higher educational requirements for the pupils who enter, but the providing of better training. She urges the elimination of non-essentials, the giving of reasonable working hours, the hiring of teachers *who can teach*, in short, arranging a training which shall be training in a real sense, not merely an opportunity to learn something by observation of sick people. Who can say that she is not right? Is it not time to turn our attention to finding how we can, rapidly and thoroughly, raise the standard of our training, instead of beginning at the wrong end and demanding an improved quality of pupil?

Mr. Gilbreth will doubtless make some definite suggestions for the betterment of work in hospitals. You may denounce them as impracticable, but a few years from now you may be adopting them. The care of patients is utterly different from factory work or building and quite unlike the routine of a business office; still in each case the problem is the same, that of *getting work done* and of handling the people who do it. This suggests that the same general principles apply. The working

out of details in the hospital and in ordinary life will naturally differ.

It is here that the efficiency engineers have rendered great service, in finding and establishing certain principles of work. The writer has spent some time during the past year in studying these principles and trying to see how they might be applied to hospital work. It is surprising how well they fit into it, and how any attempt to use them shows that they are founded on sheer common sense. Wherever they have been tried, they have proven their applicability and their value.

May it be permitted to state these principles and to show how they are related to the very vexed problem of training nurses?

Emerson, an unquestioned authority, gives twelve in number. They are:

1. Clearly defined ideals.
2. Common sense.
3. Competent counsel.
4. Discipline.
5. The fair deal.
6. Reliable, immediate, accurate records.
7. Despatching.
8. Standards and schedules.
9. Standardized conditions.
10. Standardized operations.
11. Written standard-practice instructions.
12. Efficiency rewards.

Clearly defined ideals. Our Association some years ago outlined a definite course for nurses' training. There seems to be no reason for changing it at present. What we need is to live up to it.

Common sense. A mass of tradition has grown up in our training schools, and it is hard for us who are in daily contact with it to see it in its true light. Dr. Gilman Thompson sometimes attacks it. We need the help of such men as he to point out for us where tradition may be replaced by common sense.

Competent counsel. This implies co-operation, and Emerson urges it as one of the greatest of the essentials. The American

Hospital Association represents all phases of hospital life, yet it gets only one aspect of the nursing problem. The great nursing organizations have been dealing for years with other phases, and ought to be able to add something to the work done by people whose viewpoint is primarily that of the hospital. The Committee on the Grading of Nurses has already suggested that the League of Nursing Education be consulted in regard to that phase of the problem. Some of the other Nursing societies should be able to add worth-while counsel, and the American Medical Association will certainly be a help. The sooner all these bodies, who really have common interests, get together and discuss these big problems which affect the public so vitally the sooner shall we be in the way of solving them.

Discipline. (Here Emerson begins to go into detail.) Might there be a flaw in our system of military discipline? Some factories have found that men can work with the greatest exactness, yet happily. Perhaps hospitals need some changes in their discipline which shall make it, not less strict, but more sensible and humanitarian.

The Fair Deal. (Emerson considers this one of the chief elements in success and the lack of it one of the most frequent causes of failure.) It is certainly true that a large proportion of hospitals are not giving their nurses a fair deal. The nurses give their youth, their strength, their enthusiasm, their very life, and the hospitals fail to render them anything like an equivalent. Sometimes we make their working conditions so hard that they lose the joy of labor, or even the joy of life. May we not well devote some time and thought to finding ways in which we may do justice to our nurses?

Reliable, immediate, accurate records. Keep a detailed and absolutely accurate account of what your nurses *get* in the line of teaching, practical and theoretical, and of daily work. Compare it with your printed curriculum. The discrepancies will be illuminating. The remedy lies in our own hands.

Despatching. How many of us instruct our nurses in methods of managing work? How many of us know how to do it ourselves? Management means doing a large quantity of good work easily. It is not an inborn characteristic, but an

acquired one. It is just here that the efficiency engineers can help us out. Is there any reason why we should not include them among our consultants?

Standards and schedules. In these things our training schools are almost wholly lacking. We have no literature nor text-books which do more than touch the surface of the art of nursing. Artists have for centuries been taught details of technique; musicians have been drilled in finger exercises; soldiers have been taught how to carry and shift a gun. In nursing we have been afraid to go into detail, lest our nurses become "mechanical." Is one afraid that a musician will become "mechanical" because he is taught how to finger correctly instead of being allowed to learn it by himself in some haphazard fashion?

A few hospitals have been working at standardizing nurses' work, not merely for the sake of having a standard available, but for the sake of improving the quality of the work by knowing *just how* things should be done. At the Massachusetts General they have half-unconsciously been using scientific methods in teaching nurses their practical work, teaching each detail of movement, as Mr. Gilbreth does his bricklayers, and as all efficiency engineers are doing in factories and business offices. The Addison Gilbert Hospital of Gloucester has definitely tried out some of the same things, making conscious effort to standardize some daily activities along scientific lines, has reduced them in time and in difficulty and has put them into writing so that they are available for other institutions. These instances simply illustrate the practicability of the principles.

A committee from the American Hospital Association, working with one or more efficiency engineers, and using hospitals as experiment stations, might get into shape some material which would put us on the way to efficiency in nursing.

Standardized conditions. Much has already been said upon this topic, and the Association's committee is doing good work. May we ask that they include nurses' training in their programme, recognizing it as the integral part of the scheme, which it really is?

Standardized operations. Hundreds of hospitals stand ready to standardize as soon as practical standards are available and something is done to regulate the conditions of work. This part of the programme must evidently be postponed until the other parts have been worked out.

Written standard-practice instructions. The emphasis is upon the word "written." Our hospital literature is still small. Many of us are failing in our duty because we do not put into permanent and accessible form the things which we have worked out to a simple and satisfactory conclusion. The idea of a U. S. Government Hospital Bureau aims at doing this in a large way, but it will need the co-operation of this and other associations before it can succeed in giving the country what it stands in need of.

Efficiency rewards. The experts, especially Prof. Munsterberg, of Harvard, make much of the principle of reward. Human nature being what it is, there must be a definite reward for a definite service. Professional people will usually accept spoken appreciation, higher position, fame, and such things as sufficient rewards; still, most of us are so bound by circumstances that any advance, to be a real thing to us, must express itself in terms of money.

Let us try to show our hospital boards that we must pay adequate wages to our employees if we are to get competent help; that we must give our nurses real training if we are to have the right sort of young women to care for our patients, and that there must in every case be a definite goal to be striven for if people are to be expected to strive.

Finally, since we are convinced of the need of greater efficiency in the care of our patients:

First. Shall not the American Hospital Association, both officially and individually, push the matter of social service? The Association may furnish the sources of information upon the work and its results, and each member may make himself a missionary of social efficiency in his own community.

Second. Shall there not be an increased number of communities, who, urged on by their hospitals, shall start Home Nursing Associations this year? and

Shall not more of the hospitals which have dispensaries try out the plan of pay clinics?

Many communities stand ready to take up both of these projects and present conditions under which they might be at once begun, if initiated by an established hospital.

Third. Would it not be worth while for this Association to go frankly into the subject of the training of nurses and attempt to get somewhere near to the bottom of it? Could a committee from this Association, in conference with committees from the Nursing and Medical Associations, do any better work the coming year than to try to find out what is the matter with our training schools? Perhaps the following year we might be able to get a committee who could tell us what to do about them.

Selected Articles

MEDICAL ORGANIZATION *

ONE of our latest hospitals has prepared these regulations for the government of its medical staff:

1. There shall be established primarily the following departments of services: internal medicine; general surgery; abdominal surgery and gynecology; genito-urinary surgery; orthopedic surgery; obstetrics; ophthalmology; oto-laryngology; pediatrics; laboratory diagnosis and research (including radiography). New departments may be formed or discontinued as the necessity arises upon recommendation of the Medical Advisory Board.
2. There shall be a Director in charge of each department, who shall have a sufficient number of associates to make the department thoroughly efficient.
3. The Directors of the Departments, together with their associates, shall constitute the visiting staff.
4. The Director shall have entire control of his department subject to the Rules of the Hospital, and shall be responsible to the Board of Trustees for
 - (a) The medical attendance upon all patients assigned to his service.
 - (b) The scientific study of such cases.
 - (c) The general character of any clinical teaching in his department.
5. The associates shall perform such work as may be assigned them by the Director. One of the associates shall be appointed as Senior and shall have charge of the department during the absence of the Director.
6. The Directors of the various departments, together with the Superintendent of the Hospital, shall constitute the Medical Advisory Board. The duty of this Board shall be to advise

the Board of Trustees on all questions especially relating to the professional features of the work of the Hospital.

7. All Directors and associates shall be elected at the regular annual meeting of the Board of Trustees, upon recommendation of the Medical Advisory Board. Members of the visiting staff and resident staff may be appointed as occasion arises.
8. Members of the visiting staff shall give their professional services free of charge to all patients whose maintenance charges are met by a municipality or by the state, or by charity funds or endowments given to the Hospital for the care of deserving patients.
9. The term of service of each member of the medical staff shall end at the close of the calendar year in which he reaches the age of 64.
10. Leaves of absence to members of the staff shall be arranged for with the Superintendent of the Hospital.
11. Junior associates shall have the privilege of the Hospital as to admittance of their own private patients; the privilege of the Laboratory for research work under the direction of the Director of the Laboratories; work in the outdoor department and such other privileges and duties as may be assigned by the Director in charge of the Department.

RULES OF THE HOSPITAL STAFF.

1. Anyone accepting an appointment to the Visiting Staff of the Hospital shall agree to abide by its By-laws and Regulations, and shall be governed by the principles of medical ethics as most recently compiled by the American Medical Association.
2. The officers of the Advisory Medical Board shall consist of President, Vice-President and Secretary.
3. The President shall preside at all meetings at which he is present. In his absence the Vice-President shall preside. In the absence of both the President and the Vice-President

a Chairman shall be chosen by the members present. The Secretary shall give at least two days' notice of the meetings of the Board. He shall record the proceedings of the Medical Board and transmit a copy of them whenever necessary to the Board of Trustees. The Advisory Medical Board shall meet monthly on a date agreed upon by a majority of the members. Special meetings may be called by the Chairman or upon request of three members of the Board. The business of such meeting shall be stated in the notice.

4. A committee of four (one of whom shall be the Superintendent) shall be chosen from the members of the Medical Board to examine candidates for the resident staff. This committee shall report the result of such examinations to the Medical Board. The candidate so selected shall be recommended by this Board to the Board of Trustees for appointment.
5. Five shall constitute a quorum of the Medical Advisory Board.
6. A committee of three, consisting of the Superintendent of the Hospital and two members of the Visiting Staff, shall be appointed as a Training School Committee. This Committee shall approve the requirements for admission of pupil nurses, the curriculum for the training school, and the rules and regulations governing the conduct and general welfare of the nurses.
7. A committee of three shall be selected from the Visiting Staff as a Committee on Clinics and Dispensaries. This committee shall have in charge, subject to the approval of the Board of Trustees, the details of any plan of clinical or laboratory teaching that may be undertaken by the Advisory Medical Board. It shall develop and co-ordinate the work of the out-patient department and other dispensary stations with corresponding departments of the hospital proper; the social service department shall be under the direction of this committee.
8. Other committees may be appointed from time to time to assist in carrying on the work of the Board.

9. Order of business:

- (1) Reading of the minutes of the preceding meeting and action thereon.
- (2) Unfinished business of former meetings.
- (3) Communications from the Board of Trustees and their consideration.
- (4) Communications from the Executive Committee and their consideration.
- (5) Reports or requests from the Superintendent of the Hospital and their consideration.
- (6) Reports of standing committees.
- (7) Reports of the Directors on conditions, needs, aims and progress of their departments.
- (8) Reports of special committees and their consideration.
- (9) Recommendations to the Board of Trustees for nominees for positions on the Medical Staff.

10. New business.

11. At the first regular meeting after the annual meeting of the Board of Trustees, after reading and action thereon of the minutes of the former meeting, the election of officers for the year shall have precedence of all other business, except communications from the Board of Trustees.
12. This order of business may be varied at any meeting by a two-third vote of the members present.
13. Notice of one month must be given the members of any proposed alteration in these rules, which, to become of effect, must be approved at a subsequent meeting by a two-thirds vote of all the members present.
14. There shall be held weekly meetings of the staff for informal discussion of all matters affecting the scientific management of the hospital.

RESIDENT AND HOUSE STAFF.

1. A sufficient number of residents shall be appointed, each of whom shall have served one, or, if possible, two years, as an interne in some first-class hospital. One of the residents

shall act under the direction of the Superintendent of the Hospital as Admitting Officer. Residents shall report to the Superintendent when patients are ready to be discharged. Residents shall serve the Hospital for a period of two years and shall receive a yearly honorarium.

2. There shall be an Assistant Resident, who shall assist the Resident in his duties. The Assistant Resident shall have spent at least one year as an interne in some first-class hospital. At the end of his year as Assistant Resident he shall have the preference for the position as Resident.
3. There shall also be appointed as many internes as may be required to assist the Residents in carrying on the routine work of the Hospital. They shall be chosen after examining their records as under-graduate students, their standing at the university examinations, character and personality. Their term of duty shall be one year and shall be confined to specified departments.
4. Internes, on completion of their services, shall be eligible, without examination, for internship in other departments and for positions on the Resident staff, if their work has been satisfactory.
5. Residents and internes shall reside in the Hospital. They shall not practise outside and shall give their entire time to their hospital duties. They shall visit their respective wards every morning and evening, and as often as may be necessary at other times for the welfare of the patient.
6. They shall record all orders and prescriptions for their administration in books kept in the wards for that purpose, and shall attach their signature to all such orders and prescriptions. They shall also prescribe and sign orders for the diet of the patients under the immediate direction of the Director or Associate in charge. They shall keep the clinical history of the patient in such manner as may be prescribed by the Director of the Department. In any medical or surgical case of emergency, whether a recent admission or development of a case under treatment, they shall imme-

diately notify the Director or Associate in charge and the Superintendent.

7. They shall not accept compensation of any kind from or in behalf of patients for any professional services rendered. They may accept fees for testifying in court and for making out proofs of claim in life insurance in case of patients who have been treated in the Hospital.
8. All Residents and internes, before beginning service, shall agree to abide by the Rules and Regulations and pledge themselves to the faithful observance of them; and they shall serve their full time for which they are appointed. They shall be under the control of the Superintendent and subject to the medical orders of the Director or Associate in charge.
9. Members of the Resident Staff shall visit at once new patients assigned to their departments and shall direct the nurse in charge as to the necessities of the case.
10. They shall not remove patients from one ward to another without the approval of the Superintendent.
11. They shall report promptly to the Superintendent all cases dangerously ill in their respective departments.
12. The Resident and the Acting Resident of any department shall not be absent simultaneously from the Hospital without special permission of the Superintendent.
13. Any Resident or Interne on off-leave shall report his intention to his immediate superior before going out of the hospital; they shall register upon leaving and entering the hospital. Members of the Resident Staff shall be entitled to three weeks' vacation in each year. No vacations shall be allowed until six months' service has been given. Application for leave must be secured from the Superintendent and endorsed by the Director or his Associate.
14. Diplomas shall be awarded to members of the Resident Staff upon their satisfactory completion of their work in the hospital.

RECORDS FOR HOSPITALS FOR THE INSANE IN ONTARIO

INSTRUCTIONS FOR FYLING CORRESPONDENCE.

Correspondence in Hospitals for the Insane may be divided into two general heads: "*Subject*" and "*Individual*," and the former may be further subdivided to meet varying conditions or requirements.

SUBJECT CORRESPONDENCE.

In the general correspondence pertaining to the administration and maintenance of the hospitals, one subject only is to be treated in each letter. The value of this method will be appreciated when it becomes necessary to refer to any letters on any subject, as in the particular required, nothing but this one definite subject is found, thus saving time and annoyance in looking over a heterogeneous mass of letters or papers foreign to the subject in question.

When letters are received from outside sources treating of two or more subjects, the letter is fyled under the main subject and a slip inserted in the fyles containing the minor subjects, referring to the fyle number of main subject, giving date and any other particulars deemed necessary.

All fying in the hospitals should be numeric, as it simplifies the most complicated correspondence and ensures absolute accuracy and quickest reference.

Manilla folders are numbered from "1" up and fyled consecutively and vertically in a cabinet drawer. In each folder all the letters to and from one correspondence, or concerning one subject are placed in order of date, those of latest date in front. Every letter received and copy of every answer sent, are marked with the number of that folder.

CARD INDEX.

The index to correspondence is kept in a card index tray or cabinet. One card is made out for each correspondent or subject, bearing name and address and number of that correspond-

ent's or subject's folder. A white card is used for this purpose, and when properly made out is fyled in an index tray alphabetically. To find number of folder containing any desired correspondence, refer to index card. The index card once made out indexes the correspondent or subject forever.

Example.—A letter is received from John Smith making application for a position as attendant. Suppose a folder containing applications for positions is No. 500. An index card is filled out with Smith's name and address and "see application No. 500." The number is written on the top corner of his letter and is fyled in folder No. 500. To look up at any time the applications received for the position of attendant, you would turn to card index and find that under "applications," the folder is No. 500. On the other hand, should you desire to locate Smith's correspondence you may turn to card index under "S" and find that his letter is fyled in folder No. 500.

MISCELLANEOUS.

Under this head are classed all matters of small bulk relating to either "Subject" or "Individual" correspondence. The miscellaneous fyle may be used until the number of letters received from any correspondent, or relating to any one subject amount to, say, ten letters, when the subject or individual would be assigned a folder in the regular numerical fyle. For economy of space and quickness of reference, a new series of numbers is used, saving any confusion of conflict with the "Subject" or "Individual" fyle, and twenty different subjects are fyled by number in one folder.

Example.—For the miscellaneous fyle a cipher will be prefixed, and the fyle number will be "01," "02," "03," etc., etc. The number of the first folder will be "01-020," so that this would contain 20 subjects, numbering from "01" up. The second folder will be numbered "021-040," etc., etc.

By placing the late folders in front the earlier numbers, which gradually become obsolete, pass to the rear of the drawer. For each matter so fyled a card is made out in the same way as described in "Subject Correspondence," bearing one reference only, and is fyled automatically.

Upon the correspondence becoming sufficiently bulky to warrant transfer to "Subject" or "Individual" fyle, the new number is marked on the card and before it the words "transferred to."

INDIVIDUAL CORRESPONDENCE.

All letters in reference to patients are fyled in a folder bearing a number, and a white index card is made out with patient's name and address plainly written in space provided for same, the same methods being adopted as in the case of "subject correspondence," referred to above. Where a patient has a correspondence fyle, the number also should appear in the Buff Card (No. 132) referred to later.

When the correspondence with regard to any patient is small, a Miscellaneous fyle is used until such correspondence is of sufficient bulk to warrant removal to an "individual" fyle.

In the event of correspondence being received with reference to a patient, for instance, a physician may write concerning him; a cross reference card should be made out for such correspondent.

Example.—Dr. L. M. Lee writes regarding John Robertson, a patient; reference to the card index shows John Robertson's folder to be No. 20; a second card is made up as follows:—

Lee, Dr. L. M.,
Halifax.

See John Robertson

20

Dr. Lee's correspondence is then fyled in John Robertson's folder, No. 20, and the second card is fyled alphabetically in card index tray.

GUIDE CARDS, NUMERIC AND ALPHABETIC.

(a) *Numeric Guides in Vertical Cabinets.*—These guides are numbered by tens. They assist in reference, the folders not being sufficiently full to bring the number thereof into relief. The guides will also serve to take the wear off the folder and serve as a movable support in the deep drawer.

Example.—If you want Fyle No. 154, Numeric Guide Number 150 locates it approximately. By pressing back this guide, Fyle No. 154 will be readily located. In any case, but four folders need be passed over.

For keeping the fyles in neat condition, see that the folders and guides stand in as nearly vertical position as possible.

(b) *Alphabetic Index Guides.*—These guides are sub-divisions of the alphabet, and are for the purpose of indexing the cards. "Name guides" may also be used to facilitate reference. These are blank tabbed cards on which the common names are written. They should only be used where there are more than three cards bearing similar names.

Example.—In the index appear five persons by the name of "Adams." A name guide card may be made out, containing this name, and should be fyled after the alphabetical guide "A" or any sub-division thereof which would indicate the proper order in which the name guide should be placed.

THE LAKESIDE HOME HOSPITAL FOR SICK CHILDREN

THE Lakeside Home Hospital for Sick Children opened on June 3rd at Toronto Island. Since the fire on April 22nd, it has been thoroughly renovated. The Heather Club tubercular patients will be looked after in a large tent erected on the north side of the grounds. The Trustees have erected several portable steel buildings, including a dispensary, and have made in addition several other improvements. These buildings will be used until a new and larger structure is erected. In the meantime the service at the Lakeside Home will be as complete as possible.

Obituary

THE LATE WILLIAM ORRIS MANN. M.D.

THE following resolution was adopted at a special meeting of the Executive Committee of The Hospital Bureau of Standards and Supplies on April 17th, 1915:

Whereas, The Hospital Bureau of Standards and Supplies has learned with deep regret of the death of Dr. William Orris Mann; and whereas, it is recognized that Dr. Mann was numbered among the ablest hospital administrators of the country, as evidenced by his efficient service in the several positions of trust occupied during his career, viz.: those of Assistant Physician in the Westboro, Massachusetts, Insane Hospital; Assistant Superintendent of the State Hospital at Fergus Falls, Minnesota; and Superintendent of the Massachusetts Homoeopathic Hospital, the last-named office having been held for nearly sixteen years and at the time of his death; and whereas, the high esteem in which he was held by the hospital body of the entire country was marked by his election to the Presidency of the American Hospital Association for the year 1915; be it and it is hereby

Resolved, That the Bureau enter upon its minutes a record of its esteem of the service rendered by Dr. Mann to the cause of hospital efficiency and advancement, of its appreciation of Dr. Mann's character and personality, and of its sense of loss to the Bureau and to the hospital community generally caused by his death; and it is further

Resolved, That a copy of this minute be transmitted to Dr. Mann's family.

Book Reviews

Hospital Hand Book in English and French. By H. MEUGENS, for use at the front. Simpkin, Marshall, Hamilton, Kent & Co., Limited, 4 Stationers' Hall Court, London, E.C. Price, one shilling.

Contains a list of drugs and dressings, medical terms, nursing necessities, parts of the body, weights and measures, useful phrases and words in English and French. Every Canadian soldier going to France would find this a useful book to carry in his knapsack.

Materia Medica and Therapeutics. A Text-book for Nurses. By LINETTE A. PARKER, R.N., B.Sc. (Columbia Univ.). Lea & Febiger, Philadelphia and New York.

There have been so many developments in drugdom since the earlier text-books for nurses were written that a nurse is at a loss to find handy literature on the vaccine, serum, or even everyday drugs like asperin. This book by Miss Parker is therefore doubly welcome; since it not only arranges its subject matter in an ideal way, but also refers to all the newest features in therapeutics.

The metric system is elaborately discussed, with a set of exercises added, although the causes of the definite relation between measures of length, weight and capacity are so lightly touched upon that a lecturer would have to make many further explanations.

The chapter on the history of drugs is very interesting, giving a nurse an impetus to feel a living enthusiasm in this by no means dry subject.

The great drugs, strychnine, opium, etc., are very fully described, with sketches to show how they act on the nervous system, and also with several very handsome delicately colored plates, showing their source.

Very modern points in this study are taken up in the chapters on legislation, etc.

The whole subject is excellently handled, and the book should be owned by every teacher of materia medica, as well as be found on the library shelves of the training schools.

It supplies a long-felt want. With Miss Parker's book for *text*, and the earlier books for *reference*, every pupil could administer drugs and attend to the physician's needs most intelligently.

Dorland's American Pocket Medical Dictionary. Edited by W. A. Newman Dorland, M.D., editor "American Illustrated Medical Dictionary." Ninth edition, revised and enlarged, 32mo. of 691 pages. Philadelphia and London: W. B. Saunders Company, 1915. Flexible leather, gold edges; plain, \$1.00, net; Thumb index, \$1.25 net.

The vocabulary of this new volume is as complete as possible, consistent with its size; it is up to date; it has a posological table in both systems. A beautiful and handy little book.

HOSPITAL FROM THE WEST

HON. LOUIS CODERRE, Secretary of State, recently received a telegram from Lieut. Governor Brown, of Saskatchewan, containing the offer of Saskatchewan doctors to equip a hospital for the benefit of the soldiers at the front. The offer will be forwarded to the War Office, and will doubtless be accepted.

THE third Summer School of Management will be held at Providence, R.I., for three weeks, beginning August 2nd. This course is open to professors of Engineering, Economics, Psychology, Business Administration, and other subjects allied to management; and also to doctors and superintendents in active charge of hospital administration. For further particulars, apply to Frank B. Gilbreth, 77 Brown Street, Providence, R.I.

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Hospitals should remember, in case of wishing to procure anything in steel, to write to The Dennis Wire and Iron Works Co., Limited, London, Ontario. For instance, this firm manufacture hospital wardrobe lockers, material cabinets, steel shelving of the finest make and finish, and at prices that are exceedingly reasonable consistent with the best workmanship. The Dennis Wire and Iron Works have equipped some of the best and biggest institutions in Canada and invariably receive repeat orders. They also make a lawn fence that materially enhances the appearance of institution grounds, the fence being heavily galvanized, rustproof and made by the exclusive Dennisteel method. Let the Hospital Superintendent not forget that if he requires anything in the steel line, this firm can fill the bill and fill it well.

Sanitary Doors

How often it has been found that a Hospital Theatre is, to all appearances, spotlessly clean with dust nowhere in sight—until one runs his finger along the door moulding (if such exists) and then — An institution should be equipped with slab doors throughout, perfectly plain, without panels or moulding, in order to be sanitary. Let Superintendents remember that the Boake Manufacturing Co. of Toronto make a full line of these doors and can supply them in any wood desired, guaranteeing that they *will not warp or open*, thus leaving lurking spaces for germs of any kind.

Oculists' Prescriptions

It is a well-known fact that the woods in Toronto and other large cities in Canada are too full of *so-called* opticians, men who profess with trumpets to be able to fill oculists' prescriptions correctly and scientifically, but who—*cannot*. It seems to be a pity that such is the case, as serious damage to the sight can be done by an incorrect lens. Mr. E. A. Lewis, 93½ Yonge Street, Toronto, fills prescriptions promptly and has the necessary machinery to grind his lenses on the premises. He also keeps a full assortment of artificial eyes in stock.

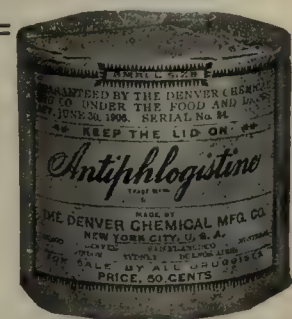
* Publisher's Department.

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Directions:—Always heat in the original container by placing in hot water.

Needless exposure to the air impairs its osmotic properties—on which its therapeutic action largely depends.



applied thick, and, in Burns, especially—COLD

Antiphlogistine, in the regular routine of practice is applied Hot. This is because moist heat continuously applied in congested states quickly restores normal cir-

ulation—the first step in the reparative process in all inflammations. Cold Antiphlogistine is more agreeable in the early treatment of Burns.

Physicians should WRITE "Antiphlogistine" to AVOID "substitutes."

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Stewart's Duplex Safety Pins

How often in the day duties of the hospital nurse is trouble experienced with certain makes of safety pins, through the head of the pin or the coil being unprotected and catching in the bandage or gauze! We would hardly venture an answer to this. Surgeons and nurses will welcome for use in the hospital or in their obstetric bag Stewart's Duplex Safety Pins. They are made of a superior quality of brass wire and will not bend or unfasten easily. *Both the head and the coil are absolutely protected by guards, so cannot catch in the clothing.* They are also rust proof, and therefore particularly suited for wet dressings. They are packed, specially for hospital use, in five gross boxes.

Battle Creek Sanitarium

It is coming to be admitted that invalids are too much indoors and that relaxation in the open air, even though no exercise is taken, is extremely beneficial.

At the Battle Creek Sanitarium two immense outdoor gymnasiums are maintained for the purpose of luring semi-invalids into the open. Separate gymnasiums being maintained for men and women, it is possible to disregard the conventional dress and get back to Nature.

Swimming pools, volley ball courts, sand baths, and just plain, everyday basking in the sun are some of the joys experienced in these gymnasiums. Patients who come to the Sanitarium during the summer frequently become tanned as brown as Indians and go home with almost the vim and endurance of the original Americans.

Electric Centrifuges

The International Instrument Co. of Cambridge, Mass., have had the honor of equipping the laboratories of some of the largest and most modern hospitals of both Canada and the United States. This firm manufactures Electric Centrifuges that have few equals, so satisfactory have they proved. Hospitals that have so far not placed an order for this line should do so promptly, as they will be found to be all that the manufacturers claim for them.

—JUST A REMINDER—

PLATT'S CHLORIDES, the Odorless Disinfectant, has received the approval of the medical profession for over a third of a century, as a disinfectant in the sick-room, the doctor's office and the household.

A combination of the Chlorides of aluminium, zinc, calcium and other safe and odorless chemicals, scientifically prepared so as to afford a valuable disinfectant and deodorizer without color, odor or any objectionable features.

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WITH ANOTHER**

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It is with perfect frankness, and with the utmost sincerity that, without pretending to cure every case of Epilepsy, we recommend to the medical profession **GÉLINEAU'S DRAGÉES**, which have given to their inventor the most complete satisfaction for 30 years and have earned for him the gratitude of numerous sufferers. **GÉLINEAU'S DRAGÉES** offer to the practitioner a superior weapon, giving him the possibility of a triumph in ordinary cases, and in all cases the certainty of at least a marked improvement.

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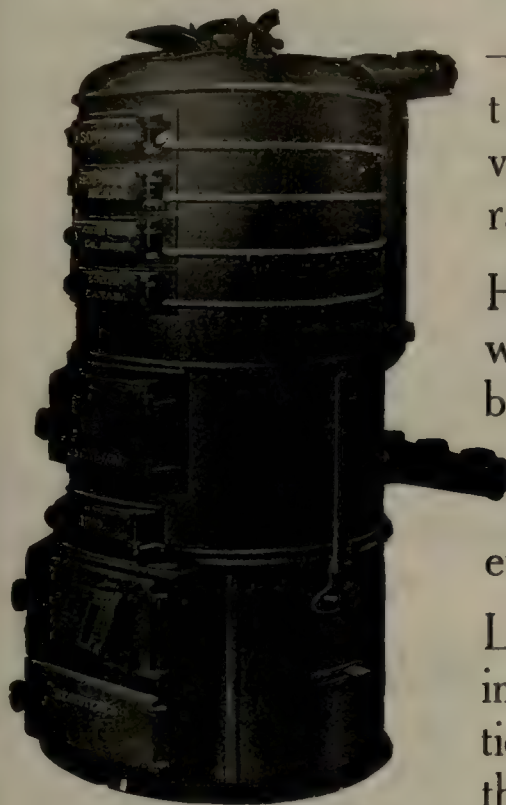
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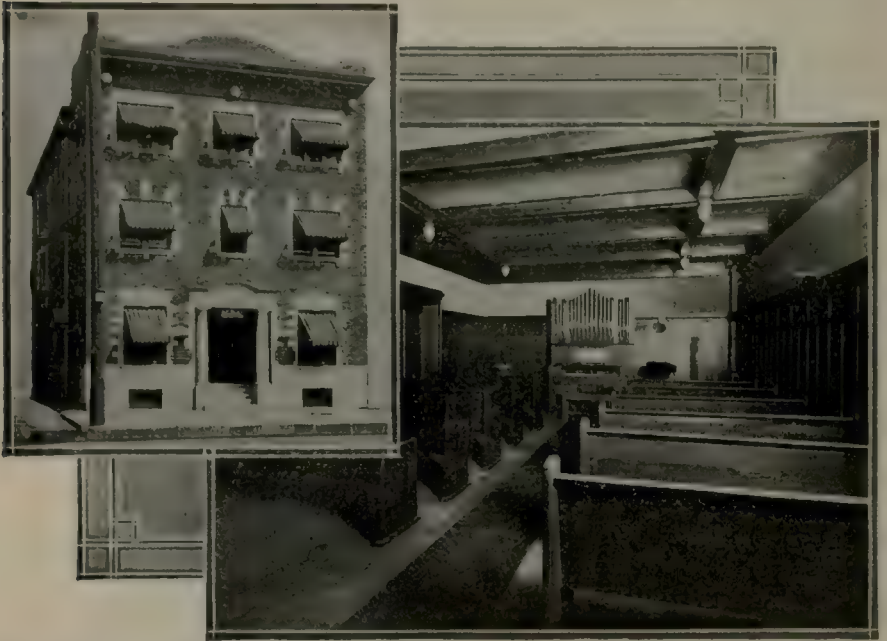
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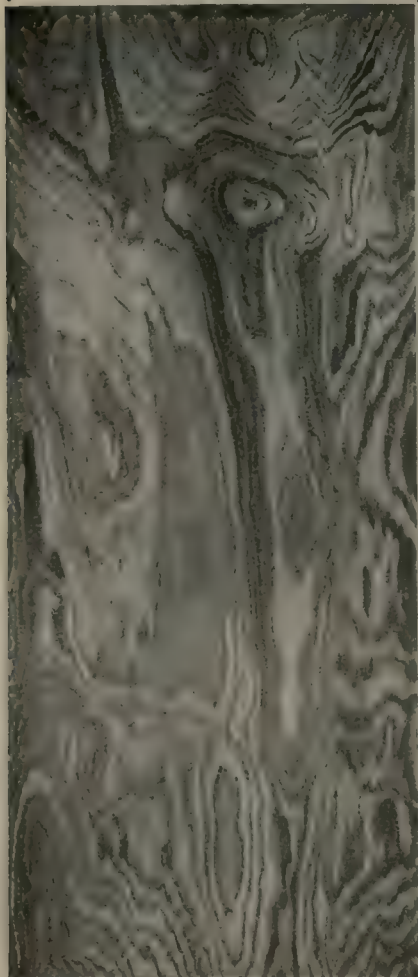
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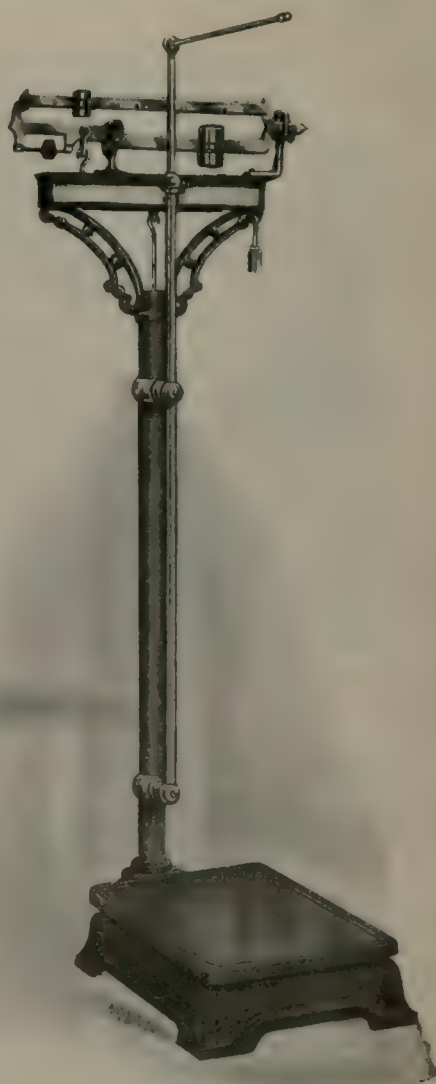
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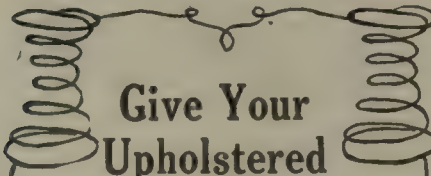
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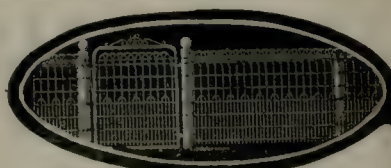
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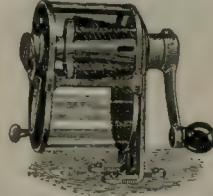
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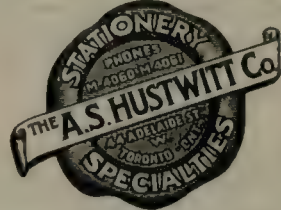
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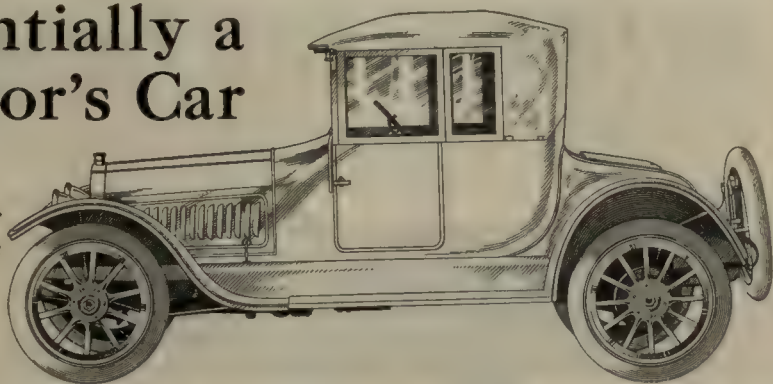
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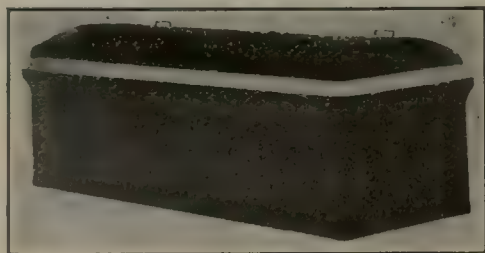
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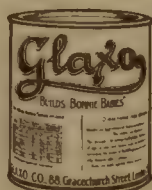
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(Incorporating The Journal of Preventive Medicine and Sociology)

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THE CANADIAN HOSPITAL ASSOCIATION

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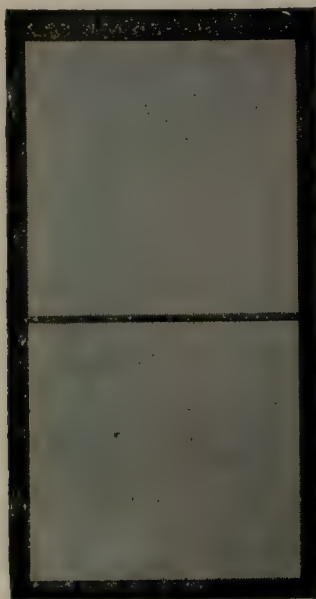
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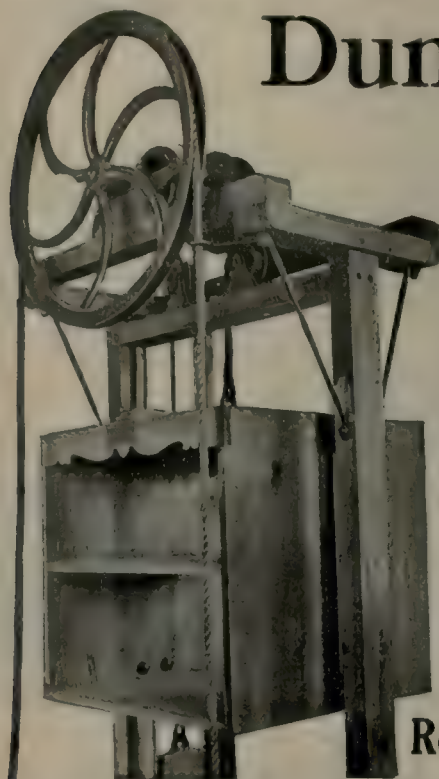
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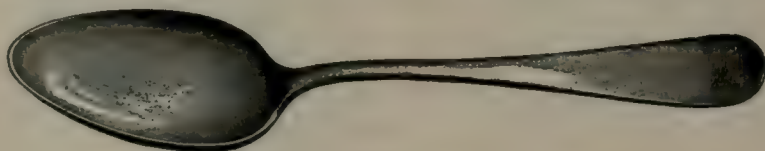
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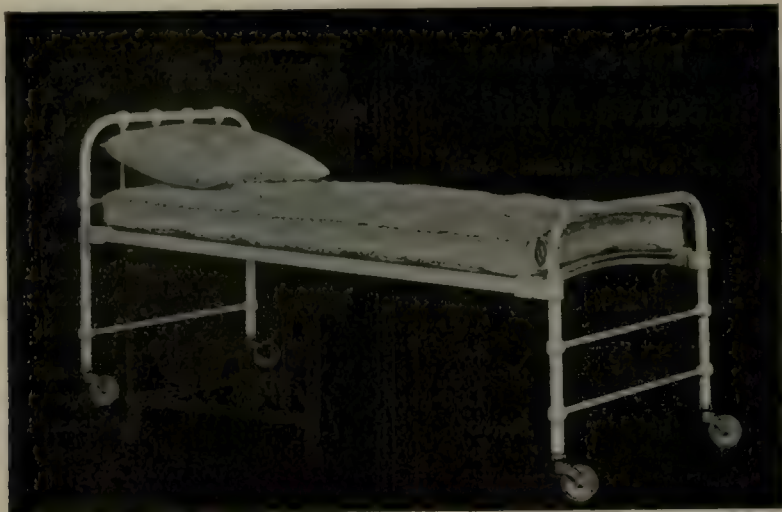
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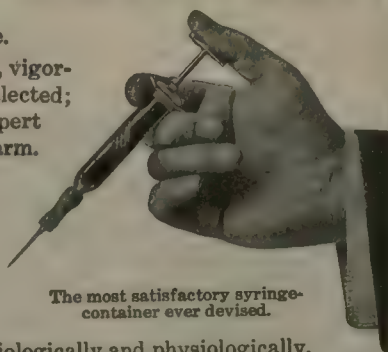
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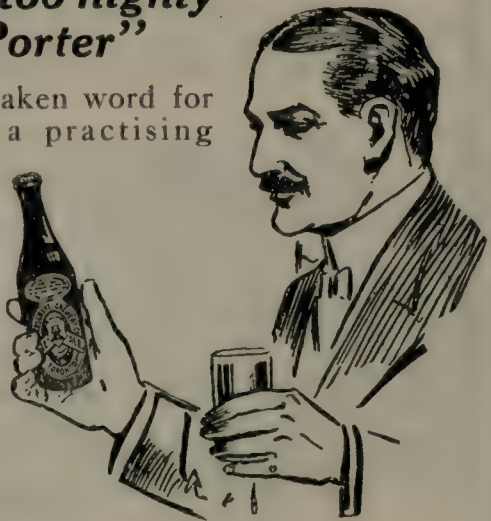
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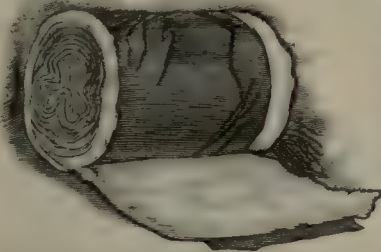
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TORONTO, AUGUST, 1915

No. 2

Editorials

WAR NOTES

MAJOR FESSINGER, M.D., who has had charge of an ambulance service near the fighting line notes a curious point in connection with the emotional shock produced by the near bursting of a big gun.

He asserts that in the subject of grave wounds the element of shock is conspicuously absent. The intensity is not proportionate to the gravity of the wound. The most severe sufferers from shock are those who have escaped physical injury. The man severely wounded suffers little or no shock.

According to Dr. Grasset, of Montpellier, who has charge of one war hospital neurological service, psychoneurotic cases thus far under observation and treatment may be roughly divided into three groups. In the first the muscles and limb movement are affected—a temporary paralysis. In the second the senses are lost or dulled. While, in the third group the disturbance of the emotional element is the predominating symptom. In the first instance, the patients have to be induced to walk, to raise their arms, to lift and so forth. In the second, unless the organs are injured, sight, hearing, and speech return gradually, in the order named. While the instances of emotional disturbances yield, as a rule to rest, suggestion, and the remainder of the treatment usually accorded to nervous prostrants.

Dr. Abercrombie, of Harley Street, London, recommends certain “ear defenders” recently put on the market by an English firm, and quotes from a personal letter received by him from an officer at the front who has been testing them.

“They are splendid. When wearing them you can hear ordinary conversations with ease, also the telephone. The sound of gunfire seems to be just the same, but one never gets the sharp painful jar in the

ear that is usually felt. Those of us who have worn them swear by them. One of my section commanders took one out of his ears, and got a nasty surprise with the gun firing—the difference was so great.”

English hospital administrators are feeling keenly their sense of responsibility, and equally of helplessness in connection with possible air raids.

Although thus far in the progress of the war it does not appear that the injuries inflicted on hospitals and their kindred institutions have been deliberate and of intent; yet there has been sufficient careless and callous firing and air raiding with disastrous results, to render the safety of hospitals within the affected area very uncertain.

With regard to Zeppelin and other air craft raids our London contemporary reports that the German and British governments have agreed upon a protective sign for churches, museums, and hospitals. This consists of a square divided diagonally with black and white, and is painted on the roof of the hospital.

Instructions have also been issued to the English hospital staffs as to the necessity of closing the windows to shut out possible poisonous gases, in event of bombs dropping in the hospital vicinity.

For the rest—to make sure that all fire appliances are in working order, and the staff prepared for emergent action appears to be all that can be done. But the continued watchful strain is great.

Paris hospitals are discovering anew the healing value of sunlight, and are utilizing the same in their treatment of war wounds.

The cicatrising and antiseptic properties of sunlight indicate its therapeutic value, and in every instance of laceration of the skin the treatment has proved beneficial.

In military surgery, heliotherapy does not exclude operation, but has proved a most useful supplement to it. Isolation not only hastens cicatrisation, but in addition to its local effects has most beneficial results upon the general condition of the patient.

Exposure of the wounds thus treated are made daily, in lengthening periods; and the hospital balconies are converted into wards for this simple but carefully supervised treatment of extensive lacerations in the wounded.

St. Thomas' hospital—that splendid historic block of buildings upon the Thames, guarded by Westminster, and known to every London visitor—has met the demand for further military accommodation by erecting temporary “huts” or small pavilions upon the green spaces between each building. Bed space for three hundred additional wounded has been made in this way.

The government has paid the cost of the structures and fittings, but the supplementary furnishings are being supplied by the hospital authorities.

That line of intervening temporary pavilions showing between the massive permanent building in

the very heart of London will be an ever-present evidence, to those who look across the river from Westminster, of the cost, and meaning, and tragic intensity of the times.

THE SPECIALIST

Too much publicity cannot be given to that portion of Dr. Gibb Wishart's presidential address before the Canadian Medical Association wherein he deals with specialism in medicine.

The qualifications he lays down with reference to his own specialty, oto-laryngology, may be applied to a majority of the other specialties.

Here is Dr. Wishart's standard for the aspirant for ear, nose and throat work:

1. An excellent general preliminary education, including a knowledge of the more important modern languages, an indispensable accomplishment for one who must follow the international literature of the day.

2. A post-graduate position as hospital interne, preferably in medicine, but better still in both medicine and surgery.

3. A year or more in general practice, during which he may try himself out, and when he chooses his specialty, choose wisely.

4. If the choice be Oto-Laryngology, then must there follow an internship of at least eighteen months, devoted exclusively to the special subjects where he will toil daily with patients in a special clinic, mastering the details of examination and diagnosis, and be trained under a master eye in the technique of operations.

5. Lastly, he must place a coping stone of a further year at some university where he will obtain post-graduate instruction upon:

- (1) Clinical diagnosis and treatment.
- (2) Functional tests especially.
- (3) Bedside work on surgical cases.
- (4) Surgical practice on the cadaver.
- (5) Practical treatment and minor operations in the out-patients' ward.
- (6) Demonstrations and lectures on normal and pathological anatomy, histology and physiology.
- (7) Diagnosis and pathology of labyrinth diseases.

In support of his premises, Dr. Wishart quotes from the Carnegie report, in which the author states that for productive investigation and intensive instruction, a medical school should use its own teaching hospital and laboratories. But for the elaboration of really thorough training in specialties which should rest on a solid undergraduate education, the school should use the great municipal hospitals of the larger cities.

Post graduate schools of the best type can hasten this consummation by becoming incorporated into accessible universities. As the *New York Medical Journal* says, the time is past when a graduate with his sheepskin still damp with the signatures of his own faculty can rush to one of the old world medical centres, devote the greater part of his time to the investigation of famous cafes and theatres, take a few special courses in a poorly understood language, from privatdocents, and in six or twelve months return with instruments of the latest pattern and letters indicating wondrous attainments, to set up as a learned specialist.

Dr. Wishart holds that the specialist should be the ally of the general practitioner, called in for consultation and not for competition—ready to support, but not to supplant. The general practitioner should avail himself of the services of the specialist whenever his conscience tells him he is dealing with a condition concerning which he is uncertain. It is criminal to do otherwise.

HOSPITALS FOR THE MIDDLE CLASSES

It has remained for Henry Ford, the millionaire automobile man, to point out through the public press the weak spot in our present hospital system, when he says:

“Hospitals now are for the poor and for the rich. There seems to be few or no hospitals for the middle class—the people of moderate means.”

Mr. Ford is right. There is no accommodation in the large modern general hospitals of to-day for the middle classes—the families whose incomes lie below say \$3,000 per year—certainly not for those below \$2,000. And the bulk of our people, stable and self-respecting, live within this amount.

When the hospital system was established on this continent it was based largely upon that of Great Britain; being the purely voluntary system which still maintains in that country, and which was intended for the service of the poor only. With the inauguration of hospital nursing schools and their

diplomaed graduates, and the rapid uplift of hospitals into highly trained and specialised medical institutions, came the desire of the well-to-do to take advantage of the skilled resources thus afforded. This demand brought into existence the private ward system under which the patient enjoys all of hospital service and resource together with the privacy of his own home.

With the introduction of private wards has come a natural and ever-widening cleavage between the two departments. The public ward is a charity. The private ward is a sanitarium, limited in comfort and luxury only by the length of the patient's purse. From comparatively modest apartments included under the general roof, the private ward department has become a separate establishment, a luxurious private hotel with rates that correspond.

True, there exists the semi-private ward with its two, three, four, even six beds. But even these pretences of privacy are rated at a scale beyond the reach of a very moderate purse. Fifteen to twenty-five and thirty dollars per week are the average private and semi-private ward prices, and this charge does not include the attendance of a special nurse nor the physician's fee.

"Four weeks in a hospital with a trained nurse just about paralyses the resources of the average man for a year," asserts one wage earner, out of a personal experience.

The man of moderate income resents charity in his sickness as at any other time. He does not choose

to be classed as a "public ward patient" with its implied stigma. His ten to twenty dollars per week of earning power means as much of respect and appreciation as the rich man's fifty or a hundred. A moderate price per week trained nurse should be at his service as freely as the twenty-five dollar one speeds to the rich.

It was recently discovered that only ten per cent. of the sick go to the hospitals. The remaining ninety per cent. struggle through in their homes, and the reason lies in the costliness of hospital service and nursing.

But the work of the world is done by the middle classes. It is their well being that makes the state. A hospital that will nurse the middle paying class back to health and productive labor again will best serve society.

How this is to be done in view of the present costliness of the modern hospital organization is a problem to be solved. It may lie in a return to less costly buildings and less expensive equipment in as far as is compatible with full efficiency of service. The hospital that is able to provide a plain private room and a competent nurse at a price within reach of the average small salaried family will be in reality an institution belonging to the people.

THE CANADIAN MILITARY NURSING SERVICE

It is very valiant and patriotic of the majority of nurses who are going to Europe to think of leaving their homes and established practice to face unknown danger. But, just as there is in every school, no matter how small, a percentage who cannot or will not do their share, this warning note is sounded to those best able to sift out the malingerers.

There is undoubtedly an element of possible romance governing the decisions of these few, which is the same factor inducing so many nurses to refuse maternity work after graduation.

Besides, one finds a certain mental rest in "signing up" with any big organization, even the War Office, which will arrange the daily routine of board, bed and laundry, in return for a stint of work, which accounts for the fact that some internes have been known to live around hospitals for as long as twelve years, or for the undue proportion of probationers to capped nurses everywhere.

Call it patriotism, in war-time, if you like—it's the same thing all the time, and nothing can stop it—there is always a natural gravitation among women to the opposite sex.

But there are three ways to weed out any who are not perfectly suited to endure the hardships of service at the front. The parents or guardians of the applicants, though the latter be of age, should be required to give their unconditional consent. The Department of Militia should never be charged with

severing family ties knowingly. The family physician should not write out a clean bill of health for a nurse unless he positively knows it is true—she has been away from his observation for years—his examination should be very rigid. His report should cover her whole life, through supplementary evidence from her school physician and others. Finally, to cap the climax, she should present cards of approval from a fixed number of her classmates. The only persons who can really know whether a nurse is sincere or not are the women who worked side by side with her on the wards.

A change of air at a distance of from twenty to fifty miles prostrates some people for a month. At a greater range, it produces gynecological changes which make every superintendent care very solicitously for her probationers. A sea voyage is a very trying experience to the average inlander. The nurse who chronically growls about the food provided where she “specials” will prove a “mauvais sujet” for the firing-line.

No nurse should volunteer without having had a long, sensible vacation, so as to be mentally and physically fit. She should have her life insured, and leave all her personal affairs in order. It is like death or marriage. It may mean the end of everything. She should, above all, consider whether the possibility of finally severing fond family ties is not too great a price to pay to prove that her conception of a new duty is a true and sane one, in the light of her past record.

The daily papers, to be actually honest, should reproduce some of the films snapped at the front, and not the walks and games with convalescents in the parks and castles of the nobility of England.

In England, everyone is very familiar with the presence of the "military." In Canada, it is comparatively remote and infrequent. There is, therefore, to the colonial nurse, a considerable loss of time, a dissipation of energy, in having to learn the dialects, slang, insular ideas and standards of Mr. Thomas Atkins.

The English "Nursing Mirror" quotes one officer as asking for nurses of the "fat, calm, quiet type." There is no fixed relation between height, complexion and weight on the one hand and industry, honor and unselfishness on the other. Many fat nurses are splendid hustlers—some are lazy. Some thin, nervous women are stupid, others are very persevering and resourceful. The Nursing World is full of "vice versas" and there will be times that the seasick volunteers will wish it were full of "terra firma" too.

This is a plea, on behalf of the women who really mean business, not to be hampered and put in a false light by a few who wish to go to the front and are not in every way fit, as some of the best English nursing sisters had good reason to complain of, after a discreet lapse of time since their onerous service in South Africa.

IS THE GRADUATE INTERNE READY FOR PRIVATE PRACTICE?

THE hospital is the aggregate of all the acute cases of illness of a community. There are frequent consultations among the physicians over cases of grave import. The interne, steeped in that atmosphere, goes out with his brand new diploma, to see the usual old chronic cases that are always turned over to him, and in every one he *tries to find the rarest* condition, not so much to outdo his predecessor in skilful diagnosis as not to be outdone himself. He has been so many years away from home and neighbors and a "kitchen" atmosphere that he forgets the everyday trifling pains and aches, which the "hoi polloi" delight in describing. For a simple indigestion that will be cured overnight by rhubarb and soda, he frames up a mare's nest of endocarditis, or hunts something unique which maybe only once was mentioned in his lectures.

In this respect, the men of the earlier school had the advantage, because they spent their vacations in the offices of shrewd, level-headed general practitioners, and learned that the daily round would be about as follows:

2 a.m.—a birth, followed by some sleep.

6.30—breakfast.

7—a child scalded.

8.30—pneumonia call.

9—incising a carbuncle.

9.30 to 10.30—two or three rheumatics.

11—a cure for baldness demanded.

11.01—some warts to burn off, etc.

Then, too, in some hospitals, both large and small, the interne has little to do with the private patients, either through the jealousy or disquiet of the attending physician. Just as it is advantageous to the attending physician to have a faithful interne, so the former is obliged to be an example and give aid to the latter in his manner of address to his cases.

The hospital has its share of responsibility too. The establishment of a small, chartered dispensary is a long stride towards controlling the health of the community, and gives the interne the first aid towards the “kitchen atmosphere.” The final step would be a social service in which the house doctors will go out under the district physician to treat these everyday troubles of the poor. They will not come to him from the neurasthenic rich until he is older.

When an interne goes whistling up the stairs, in a lovely home, where illness has suddenly smitten the main prop of the family, the wife has every reason to feel frantic. But she should report this to the Board of Managers, not among her friends. A quiet admonition from the President of the Board would be that young interne’s most valuable asset in founding his practice. He is not hardened towards sorrow. He simply eliminates all thought of it, and to him an ambulance call is only a “joy ride.” There should certainly be more hearty co-operation between the medical staff and the internes, so that, from the outset, they may know what is expected of them by the community.

Original Contributions

LITTLE JOURNEYS

BY DR. JOHN N. E. BROWN,
Superintendent, Henry Ford Hospital, Detroit.

JOHNS HOPKINS HOSPITAL, BALTIMORE, MD.

When you enter the administration building of the Johns Hopkins Hospital the first thing that greets you in the foyer is Thorwaldsen's immense statue of Christ with outstretched hands. This silent commanding figure, occupying this prominent central station in the institution, will, for centuries to come, as in the past, wield an incomputable influence on all who work under its spell.

The writer learned that Mr. Hopkins stipulated in his will that a Christian spirit should pervade the hospital. As a result of this wish, we surmise, this wonderful statue was placed where it is.

One of the assistant superintendents who had been in his position about a year told us that he had yet to discipline a house officer. One ex-resident informed me that during his nine years stay at the institution he had never heard a breath of criticism against the character of any nurse. These are significant facts.

Great care is taken in regard to the selection of both internes, nurses and employees.

An atmosphere of courtesy, kindness, and hospitality permeates the entire place.

Dr. Winford Smith the General Superintendent, is an alumnus of the University and Hospital. Dr. Smith, while still studying, had in mind his goal,—that of an expert in hospital administrative work. He is the Secretary of the Medical Board, which consists of representatives of the medical, surgical and other departments. He transmits with his approval or disapproval the recommendations of the Medical Board to the Board of Trustees.

The unitary system of organization prevails in this institution, and the members of the medical staff hold co-ordinate positions in John Hopkins Medical College. Some of the surgical and medical chiefs give the hospital their full time and are in receipt of salaries. Other members of the staff give only a part of their time to the hospital. The resident members of the staff act as instructors in the Medical School. For their services they receive salaries from the Hospital and University. The length of stay of a resident is unlimited, if his services are acceptable.

THE JAMES BUCHANAN BRADY UROLOGICAL CLINIC.

During the past two years there has been erected at the Johns Hopkins Hospital a building for the treatment of urological cases under the direction of Dr. Hugh H. Young. The only other hospital of the sort we know of is St. Peter's, London, England. The building cost \$200,000, which amount was donated by "Diamond Jim Brady," of New York, a grateful patient.

For over a year, studies on the plans were made by Dr. Young, Dr. Winford Smith, Architects Archer & Lane, and Mr. C. L. Reeder, Engineer.

The building consists of seven storeys with a basement and is closely connected with the urological out-patient department, the general kitchen and the main corridor of the general buildings.

The basement has rooms for animal experimentation—operating rooms and annexes. Into it fresh air is forced at the ceiling and withdrawn near the floor.

The first floor contains rooms for consultation, preliminary examination of patients and history taking. In addition there are five rooms for urethoscopy, cystoscopy and ureteral catheterization, each of which is supplied with hot and cold sterile water, for the preparation of irrigations; an electric sterilizer for instruments and nozzles, sinks and lavatories. There are besides rooms for X-Ray apparatus, for radiographic, pyleographic and high frequency treatment. Demonstrations can be given without moving the patient from the cystoscopic table. Adjoining

are rooms in which X-Ray plates may be developed, and laboratories for the examination of urine, blood, and for special research. These laboratories are provided with the customary vacuum, compressed air, and chemical hoods, the latter having steam connections. Running water and small staining sinks are provided on the microscopical tables.

The main entrance from the general corridor is on the second floor. Here is found a beautiful foyer—a room some fifteen by thirty feet, finished in panelled gray marble. In it a bronze dedicatory tablet to Mr. Brady will be placed. It is lighted by French windows on each side. The room is furnished with attractive rugs, chairs and settees. To one side is a reception room.

On this same storey—the second—there is accommodation for twenty patients—a large ward for twelve patients, two single bed wards and two small wards of three beds each. The large ward is provided with a lavatory; there are two bath rooms and toilets for general use. The service rooms are grouped centrally on each side of the corridor. In addition to the utility room there is a charting room and a special room for orderlies' work.

The third storey is similar to the second, except that directly over the foyer of the first floor there is an attractive day room for the patients.

The fourth and fifth storeys contain rooms for ten private patients. One public and four private baths are provided, with a similar grouping of service rooms to that on the third floor. There is running hot and cold water in each room—a great convenience to patients, nurses and doctors—the use of which will greatly minimize the danger of transmitting infection.

The corridor floors are covered with battleship linoleum. The border is of gray marble with a coved marble base.

In the examining rooms and laboratories terrazzo is used for the floors. In the two rooms above referred to—in which X-Ray work is done a thick rubber mat covers the entire floor. This minimizes the danger from electric shock; and adds to comfort. Georgia pine is used for the floors of the private rooms.

On the sixth floor are the quarters of the resident staff, and a lounge for the private patients. An open porch is provided for the occupants of this flat.

On the seventh floor are the research laboratories. These are separate from the clinical laboratories.

Patients occupying this building requiring operation are transferred to the main surgical operating building for operation.

THE MARBURG OR PRIVATE WARD BUILDING.

Although the Musalophone is used in the other buildings of the hospital, it is not used in the private ward for fear of annoying the patients.

Some of the bathrooms not only open into the private rooms on each side, but also into the corridor. If the patients on either side do not wish a bath in connection with their room, the doors from the bathroom into the rooms may be locked. The door opening into the corridor may then be unlocked and the bathroom used for the other patients.

The nurses' stations are commodious and are provided with two tables, one for the head nurse, and one for the charting nurse.

The food containers are locked before leaving the kitchen and unlocked by the nurse in charge of the distributing pantry, thus insuring no loss of food in transit.

The rooms are provided with light rockers and light straight-backed chairs, both of which have cane bottoms. The clocks used in the private ward are supplied by the Self-Winding Clock Company.

THE HENRY PHIPPS PSYCHIATRIC CLINIC.

Dr. Adolph Meyer and the architect spent some two years abroad before starting work on the plans of this building. The color of the walls of the building is a light green. The wards are of various pleasing colors; the furniture of the wards is colored to match the walls, silver gray, golden oak and the like. The lighting is semi-direct. Door handles of the bar type, sloping downward at an angle of forty-five degrees, are used throughout the building. The patients cannot hang themselves upon them. All inside doors are painted white. Cupboards in the nurses' stations have provisions made for holding the nurse's

charts. Capacious laboratories are provided—one devoted to investigations pertaining to Internal Medicine, and one for pathology of the nervous system. A darkroom is provided for testing the effect of colors upon patients.

There is a billiard room in the building for the use of patients. Although there is accommodation for some eighty or ninety patients, at our time of inspection there seemed to be only a few beds occupied.

The corridor floor is of terrazzo with a six-foot strip of battleship linoleum set in so as to be level with the terrazzo. This arrangement is also used in the Brady Urological Clinic. The nurses' stations are partitioned off from the corridor up to a height of two feet from the ceiling. The opening above permits the nurse to hear any noise in the ward. A small electric stove folding into the wall near the door is used for heating water. When folded it is flush with the wall. It is made by the Simplex Electric Company. The gas stove in the laboratory and kitchen also folds up so as to take up less room. A wheel shut-off is used on the gas in-take pipe, and no taps are used on the stove. This is to prevent patients from turning on the gas. In the basement of this building is a Zander apparatus—riding, rowing, bicycling, and other sorts of exercising apparatus.

Two portable tubs for continuous baths are placed off the wards on the flats occupied by the disturbed patients. All the linen rooms are provided with wooden shelves. The floors are of "Compolite," which has proven unsatisfactory; it is cracked—one place is badly broken.

A small ward is located at each side of the corridor just at the entrance of the large room. These rooms have one door opening into the large ward and one into the corridor. This enables the nurses to take a troublesome patient from the ward into this room, and later remove him from the flat without the knowledge of the other patients. Evidence of the activity of one of these disturbed patients was shown by an interne whose head was bandaged up as a result of being kicked by one of them.

The class room for medical students is provided with Windsor chairs, which are light and strong. In this classroom is a large stage and directly back of it is a blackboard. Along the

wall which slants forward at an angle of thirty degrees on the left is a space provided for the exhibition of maps and charts. The corresponding space on the left is occupied by a ground glass screen upon which pictures are thrown from a projection lantern directly back of it.

The W.C.'s are provided with push flushometers. The seat upon which the patient sits raises up about three or four inches when the patient stands up after defecation, this upward action of the seat flushes the pan.

The balcony of the roof garden is closed in with a fancy wire screen surrounded by a beautiful hedge. This hedge partially disguises the nature of the screen. The floor is covered with red French tile about five inches square.

The kitchens are small, compact and neatly kept. The tray racks are made of wire about the thickness of a slate pencil which is woven into diagonal shapes. Similar racks are used in the other pavilions. There is a small steam table and a two-ring gas range in the kitchen. These are, as before stated, folded up against the wall when not in use. The sink is of porcelain with a copper drip board. Everything is bright and shining.

Covering the outside of the windows of this building are screens of ornamental iron, which, unlike bars, do not make one think of a prison. The window shades are of Holland.

GENERAL REMARKS.

The laundry contains three separate sets of galvanized iron washers, one set for the nurses, one for the doctors, and one for the patients. This equipment was installed by the American Laundry Machinery Co. There are three separate mangles, one for the patients' clothes, one for the staff and one for the nurses.

In the stewards' department ordinary wooden shelves of adequate size are used for stores. Cold boxes for the keeping of fruit and vegetables are maintained at a constant temperature of forty-six degrees Fahrenheit. The size of the box is about five feet by twelve feet. The meat boxes are about eight by twelve and the butter and egg boxes about five by eight.

The diet kitchen is a room of about twenty-five by thirty-five feet, in which the work of teaching probationers and preparing of special diets is carried on. In this room are four large tables, one on which fluid diets are prepared, one for the kneading of bread, one for the preparation of pastry, and one for the preparation of salads. Two sinks are ranged along the wall, one of which is used by the probationers, and the other by the nurses. Here aluminum ware is superseding enamelled ware.

Our warmest thanks are due to Dr. Karl Van Norman for piloting us about through those portions of this great hospital above referred to.

TRANSPORTATION OF HOSPITAL SUPPLIES

BY PHOEBE DODY.

It will be long ere the last word has been said on the question of the transportation of hospital supplies within the institution—the food, the ward medical supplies, the drugs, the linen (soiled and clean), from kitchen, surgical supply room, pharmacy; to and from laundry, respectively.

The importance of this subject may be realized when it is stated that it often influences the decision as to whether a hospital shall be a skyscraper or composed of low-storied pavilions scattered over several acres.

For ourselves, we unhesitatingly prefer the low-storied pavilions in quiet grounds parked and gardened, for the most obvious of reasons. The objection, the cost of portage and transportation, will soon be overcome by the introduction of electric carriers and dumb-waiters. These carriers and waiters have been introduced in some of the large business houses for the speedy transportation of express and freight packages, mail, sold articles, change, etc.; and we can see no reason why the same principle cannot be employed in the carrying of all sorts of hospital supplies, including hot food from the general kitchen to the ward serving pantries, and the soiled laundry from the

soiled linen room to the laundry receiving room. The scheme is perfectly practicable; and while the initial cost would be somewhat expensive, its maintenance over a term of years being so much less than the hiring of porters, would quite offset the costliness of the original installation. Besides, one must think of the infinitely more expeditious service, the quick carriage of the hot food in containers kept hot by the electrically heated trolley or carriage to the hot serving table; the immediate delivery of medicines so often required and so often delivered some hours after being prescribed.

The new electric mail carrier is described as follows in a recent number of the *Boston Transcript*:—

A new type of electric carrier for transporting post-office, express or package freight has been devised in which the cars, running in a cylindrical tube, are propelled by magnetic force without wheel traction. The system, which is patented and is controlled by the Electric Carrier Company, New York City, is said to be applicable to any case of package transportation on a large scale.

The car runs on a narrow-gauge track. Between the rails is a flattened part of an alternating-current induction motor, corresponding to its rotor, with closed circuit windings of the squirrel-cage type. On the bottom of the car is another flattened part of a motor, corresponding to its stator, with open-circuit wire windings. The air space between the motor parts is about $\frac{3}{8}$ inch. Power is supplied to the car through two live rails at the top of the tube, and contact is made by a small wheel running on each rail. Short stiff springs holding the trolley wheels in contact help to guide the car around curves, but without binding, opportunity being afforded at the same time to use the maximum height of car. The alternating current used passes through the primary member on the car and induces a magnetic field, which propels the car at uniform speed regardless of the grade. Ball bearings are used on the running wheels, which are mounted on separate axles. A patent signal system divides the line into block sections, and the section occupied by a car is indicated by a light in a glass diagram in the terminal buildings. The stoppage of the cars is accomplished

by reversing the current, and is assisted by a pair of raised rails at the terminals which exert a braking action on the bottom of the car body.

It is proposed to apply the system, using underground tubes forty-eight inches in diameter, wherever there is a large traffic, as between the two large railway terminals in New York City, as well as in general business between cities. The advantages claimed over any other electrical system are that the same unit of power will send a car farther and faster when applied as a direct pull than when exerted indirectly through gearing; that the smallness of the propelling member increases the carrying capacity of the car; that the system is adaptable to any grade; that grinding of the wheels is eliminated; that the smallness of the wheels will not limit the speed; and that the synchronous movement will safely permit high-speed operation on a short headway, a speed of sixty miles an hour being feasible. Great advantages are also claimed for the use of a continuous track member and the reversing of the primary and secondary elements, thus eliminating costly winding on the long track element.

The *Dry Goods Economist* describes the electric dumb waiters for stores as follows:—

A complete system for handling merchandise was recently installed in one of the big Chicago department stores. This system is used in distributing merchandise from the storeroom, which is located in the basement, to the various floors on which the goods are retailed. It is also used for conveying "sold" packages from all floors to the shipping department in the sub-basement.

The system consists of five electric push-button dumb-waiters, two of which operate in one bank between the second and sub-basement and the eighth floor (serving all intervening floors). Two others run between the first sub-basement and the shoe department on the mezzanine floor, and one between the second sub-basement and the mezzanine floor.

The two high-rise dumb waiters are controlled from one master station, which is on the seventh floor. On each floor,

near the shaft, is a push-button for calling the elevator, and, mounted in the base of the car, is a bank of push-buttons to signal to the operator at the master station the number of the floor to which the car is to be sent after loading. The apparatus is automatically arranged, so that when a car is in use its operation cannot be interfered with. When any door on the shaft is open, the device cannot be started. Slack cable attachments cause the mechanism to stop when there is an obstruction in the shaft.

The dumb waiters operating between the sub-basement and the mezzanine floor can be brought or sent to either floor by simply pushing the button. The automatic features used on the high-rise cars to prevent interference when the cars are in use and to prevent them from being started when a door is open are also used on these dumb waiters.

A triple spiral gravity conveyor is used for carrying "sold" packages from the retail floors to the shipping room. This conveyor consists of three spiral chutes enclosed in a cylindrical shaft, six feet in diameter, and runs from the eighth floor to the sub-basement, with inlets at all floors. Two of the spirals extend from the eighth floor to the sub-basement ceiling, one being used to convey C. O. D. packages and the other to carry charge packages. These spirals carry goods direct to the distributing tables, where they are sorted for delivery routes. The remaining spiral, which runs from the eighth floor to the basement ceiling, is used to carry "will call" packages, delivering them to a belt conveyor for distribution to the proper bins.

After the delivery packages have been sorted they are carried by an electrically operated drum-type package elevator from the second sub-basement to the shipping platform, where they are loaded into the delivery trucks.

War Hospitals

QUEEN'S CANADIAN HOSPITAL

If ever a haven of rest for wounded body and shattered nerves existed surpassing beautiful Beachborough Park it can hardly be of this earth. Imagine a weary war-battered Canadian transferred from the hell-fire of the battlefront, with its filthy trenches to a peaceful Kentish scene. Picture a quaint, comfortable English manor house of the sixteenth century set in the midst of thousands of green acres where ancient oaks and clumps of leafy elms dot the verdant pastures. Yew trees, centuries old, chestnuts in flower, shady plant trees and evergreen holly grace the velvet lawns about the house or group in deep forest in the distance while hawthorn hedges white with blossom divide the meadows in all directions.

Dark green ivy in luxuriant masses clings to the walls of the house, interspersed with climbing roses of deepest crimson. Purple iola and sprays of forget-me-not edge the flower beds and white blossoms dangle from the vines that creep over the old brick walls that guard the fruit garden in the rear. Inside cherries on queer vine-like trees, are ripening for convalescent soldiers. Queer apple trees, twisted and trained like grape vines, give promise of pippins, and luscious strawberries are fast mellowing in the June sunshine.

Out in the grounds, above the soft carpet-like daisy-dotted turf, birds whistle and warble melodiously from every nook and corner, as only English birds know how to do. Even darkness does not completely silence this feathered choir. For where darkness distils the fragrance of the flowers the notes of a nightingale sound sweetly soft on the night air.

Stretched on the cool, fresh linen of comfortable beds, carefully tended by Canadian nurses and doctors, petted by visitors and fed on the fat of the land wounded men are nursed back to convalescence when sunny porches await them, leisurely rambles

about the illimitable grounds and motor runs through the Garden of England.

Such is the Queen's Canadian Hospital, Beachborough Park, the ancient estate of the Brockman family, rented by Sir A. Markham and donated by his generous wife as an infirmary for Canada's sick and wounded soldier sons.

Here Doctors Charles Stewart, of Calgary, and Wallis, of Hamilton, preside, and among the nurses Sister Mitchell of Toronto, a niece of Dr. Allen Baines. Thither from London comes frequently the officer in charge, Colonel Donald Armour.

There were some sixty patients when the writer called last Sunday. In fact, the hospital is filled and the staff are awaiting completion of the large addition which is to accommodate 100 more beds.

Walking through a spacious, tiled comfortable hall whose walls and those of its adjoining staircase are covered with men in armor and ladies in ruffs—family portraits of the Brockmans by famous artists—one comes to the place where the new building joins on to its parent of Elizabeth's day.

Hard by a ghost walks on dark and stormy nights, so 'tis said. Long years ago, in Jacobean times, some poor creature hanged himself in a cubby-hole under the stairs. How he managed it goodness knows, for an average-sized man can scarcely stand upright in the little closet. But here he shuffled off this mortal coil, and in the eerie hours of anniversary nights, and others, too, this pale, unhappy spook glides out and up the oaken staircase to vanish into what is now ward three.

But he hasn't haunted the Canucks so far, and genial Doctor Stewart sets forward the theory that the smell of iodoform is distasteful to spirits.

Distinguished visitors have been calling at the hospital of late. One was Princess Clementina, the affable sister of Albert II., the hero-King of the Belgians, not a few of whose brave soldiers have been nursed back to life within these walls—for there have been others than Canadians. Princess Alexander of Teck whose husband is a British officer at the front, was another royal caller.

It being announced that she was shortly to arrive a group of nurses in the operating-room were waiting expectantly, when in walked Dr. Wallis, his hand on the shoulder of a smiling, good-looking young woman of about twenty-eight, presumably a friend. The two pottered about and the nurses went on with their dressing.

"Doctor, when is that princess going to arrive?" questioned an impatient nurse, anxious to get at some work.

"Why, here she is," exclaimed the doctor, bowing towards the princess, whereat Her Royal Highness burst out laughing. She, Queen Mary's sister and wife of a possibly future Canadian Governor-General, had planned this very informal entrance with the doctor.

Just in front of the hospital and across the lawn where the hounds meet on hunting mornings, is a high hill topped with a queer little domed pavilion. Brockman's Folly is its name. Up its steep sides a sporting squire once drove a horse and trap, right to the peak, for a wager, when too old to mount his steed. The same old sportsman from this elevation watched the red-coated riders and their fox-hunting pack stream off across the downs. From this height a glorious view of the surrounding country can be had. Dotted like white ant-hills in groups, military camps cluster in every direction. Off to the south sparkle the waters of the Channel. Far beyond, a broad yellow line on the horizon, rise the cliffs of France.

ROYAL NAVAL HOSPITAL

On a picturesque site in the grounds of the Royal Naval Hospital, Haslar, overlooking the Solent, with the hills of the Isle of Wight forming a charming background, there is being built a magnificent new wing to the great naval hospital which will pass to posterity as a monument to the patriotism and loyalty of the women of Canada. At the outbreak of the war the Canadian women, anxious to demonstrate in a practical form their deep sense of devotion to the Mother Country, organized a fund to aid the nursing of the sick and wounded. A sum approaching £50,000 was raised in a very short period, and was handed over to the Imperial Government to be applied in whatever way it considered best. There had, for a long time, been pressing need for ward extension at the Royal Naval Hospital, Haslar, and the Government allocated the major portion of the generous gift to the construction of a new wing to that institution, which will be named the Canadian Women's Wing.

Since the outbreak of the war the resources of the hospital have been taxed severely to provide accommodation for the sick and wounded from the fleet in the North Sea and as a result of the naval operations in the Dardanelles, and the 250 beds which will be available on the completion of the new wing will add greatly to the efficiency of the hospital. These beds are at the present time occupied by the nursing staff, though originally intended as part of the hospital accommodation proper. On the completion of the new wing the staff will be housed therein, and the beds now utilized by them in the main hospital will revert to their original purpose, so that the net result of the generosity of the Canadian ladies will be that at least 250 more sick or wounded will be able to receive treatment at the institution. The new wing will stand isolated from the main building, and will be constructed of red brick and stone facings in harmony with older portions of the institution.

Selected Article

LETHAL GASES IN WAR

THE profession will be keenly interested in the following article, comprising the report furnished to the War Office by Dr. J. S. Haldane, F.R.S., who was sent to France to investigate the nature of the gases used by the Germans in their attack upon the French and British lines.

General Headquarters,
British Expeditionary Force,
April 27th, 1915.

To Earl Kitchener, Secretary of State for War.
My Lord:

I have the honor to report that, as requested by you yesterday morning, I proceeded to France to investigate the nature and effects of the asphyxiating gas employed in the recent fighting by the German troops. After reporting myself to General Headquarters I proceeded to Bailleul with Sir Wilmot Herringham, Consulting Physician to the British Force, and examined with him several men from Canadian battalions who were at the No. 2 Casualty Clearing Station, suffering from the effects of the gas.

These men were lying struggling for breath, and blue in the face. On examining the blood with the spectroscope and by other means, I ascertained that the blueness was not due to the presence of any abnormal pigment. There was nothing to account for the blueness (cyanosis) and struggle for air, but the one fact that they were suffering from acute bronchitis, such as is caused by inhalation of an irritant gas. Their statements were that when in the trenches they had been overwhelmed by an irritant gas produced in front of the German trenches, and carried towards them by a gentle breeze.

One of them died shortly after our arrival. A post-mortem examination was conducted in our presence by Lieutenant

McNee, a pathologist by profession, of Glasgow University. The examination showed that death was due to acute bronchitis and its secondary effects. There was no doubt that the bronchitis and accompanying slow asphyxiation were due to the irritant gas.

Lieutenant McNee had also examined yesterday the body of a Canadian sergeant, who had died in the clearing station from the effects of the gas. In this case, also, very acute bronchitis and edema of the lungs caused death by asphyxiation.

A deposition by Captain Bertram, Eighth Canadian Battalion, was carefully taken down by Lieutenant McNee. Captain Bertram was then in the clearing station, suffering from the effects of the gas and from a wound. From a support trench, about 600 yards from the German lines, he had observed the gas. He saw, first of all, a white smoke rising from the German trenches to a height of about three feet. Then in front of the white smoke appeared a greenish cloud, which drifted along the ground to our trenches, not rising more than about seven feet from the ground when it reached our first trenches. Men in these trenches were obliged to leave, and a number of them were killed by the effects of the gas. He made a counter-attack about fifteen minutes after the gas came over, and saw twenty-four men lying dead from the effects of the gas on a small stretch of road leading from the advanced trenches to the supports. He was himself much affected by the gas still present, and felt as if he could not breathe.

The symptoms and the other facts so far ascertained point to the use by the German troops of chlorine or bromine for purposes of asphyxiation.

There are also facts pointing to the use in German shells of other irritant substances, though in some cases at least these agents are not of the same brutally barbarous character as the gas used in the attack on the Canadians. The effects are not those of any of the ordinary products of combustion of explosives. On this point the symptoms described left not the slightest doubt in my mind.

Professor H. B. Baker, F.R.S., who accompanied me, is making further inquiries from the chemical side.

I am, my Lord, your obedient servant.

J. S. HALDANE.

Dr. John Scott Haldane, F.R.S., who has conducted the investigation for the War Office, is a brother of Lord Haldane. He is a graduate in medicine of Edinburgh University and an M.A. of Oxford and an LL.D. of Birmingham. For many years he has been engaged in scientific investigation, and has contributed largely to the elucidation of the causes of death in colliery and mine explosions. He is the author of a work on the physiology of respiration and air analysis.

Professor Baker, F.R.S., who is carrying out chemical investigations into the nature of the gases, is Professor of Chemistry in the Imperial College of Science and Technology, London. He was a Scholar in Natural Science at Balliol. He has conducted important experiments into the nature of gases.

Sir Wilmot Herringham, M.D., Oxon., is a physician to St. Bartholomew's Hospital and Vice-Chancellor of the London University.

Lieutenant McNee, M.B., M.Ch., Glasgow, a Carnegie Research Fellow, is assistant to the Professor of Pathology in Glasgow University and has conducted many investigations of an important character in pathology and chemical pathology.

CHLORINE AND BROMINE.

The investigation which has been conducted by Dr. Haldane indicates the use of chlorine or bromine in the asphyxiating gas. Chlorine is a greenish yellow gas much heavier than air. It causes a sense of suffocation when inhaled and rapidly sets up inflammation of mucous membranes. It is probably the most effective of all gases that might be employed for the purpose of killing men in warfare.

Bromine is a still heavier gas than chlorine. At ordinary temperature it is a dark brownish red liquid of most irritating smell. It is very volatile and boils at sixty-three degrees. Its vapor is yellowish red and becomes less transparent when heated. It acts like chlorine as a violent irritant to mucous membranes. Large quantities of bromide are produced at Strassfurt, in Germany.

Germany is a signatory to the Declaration at The Hague Conference of 1899 interdicting the use of asphyxiating gases. The article runs as follows:—

Les Puissances Contractantes s'interdisent l'emploi de projectiles qui ont pour but unique de répandre des gaz asphyxiants ou délétères.

The English text, which is faulty, runs:—

The Contracting Powers agree to abstain from the use of projectiles, the object of which is the diffusion of asphyxiating or deleterious gases.

It is necessary that the word "sole" should precede the word "object" in order to give the correct meaning of the clause.

A Hospital Commission

The Dominion Government recently appointed a Commission to deal with the situation which will arise by the return to Canada during the progress of the war of the sick and wounded from the front. It is to be known as the "Hospital Commission" and will be under the Presidency of Hon. Senator Lougheed, K.C., Leader of the Government in the Senate and Acting Minister of Militia in the absence of General Sam Hughes. The other members of the Commission are: Col. Sir H. M. Pellatt, K.C.V.O., Toronto; Hon. Col. Sir Rodolphe Forget, M.P., Montreal; Smeaton White, of *The Gazette*, Montreal; John S. McLennan, of Sydney, N.S.; Lieut.-Col. Thomas Walker, M.D., of St. John; Frederick W. Avery, of Ottawa; Col. C. W. Rowley, of Winnipeg; J. H. S. Watson, of Victoria, B.C.; the Director-General of Medical Services, Canadian Militia, Ottawa, and Clarence Smith, of Montreal.

The University Base Hospital

On the arrival of No. 4 General Hospital in England it was temporarily split up, until such a time as the equipment was gotten together. The seventy-four nurses have been distributed throughout the Hospitals in France, as also the doctors, the majority of whom, however, are stationed at Shorncliffe. It is understood that No. 4 General Hospital will, however, shortly go to the front as a unit.

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An Occupational School at Battle Creek Sanitarium

It is becoming recognized among the members of the medical profession that semi-invalids are usually given too much time for introspection and that if useful, interesting occupation is provided, their symptoms really become less acute.

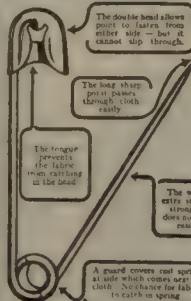
In line with this healthful theory, the Battle Creek Sanitarium has instituted an Occupational School in which many of the patients have already interested themselves to their health betterment.

Many useful branches are taught in this school, including weaving, basketry, stenciling, clay-modeling and others.

The efficacy of the project, especially in quieting nervous patients, has been clearly demonstrated.

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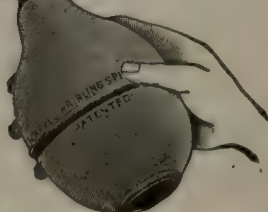
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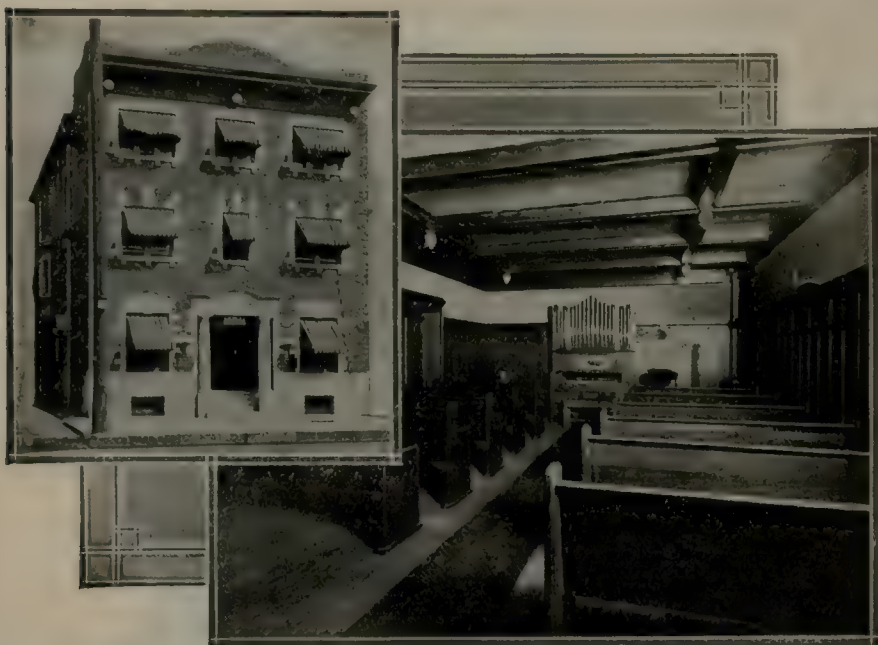
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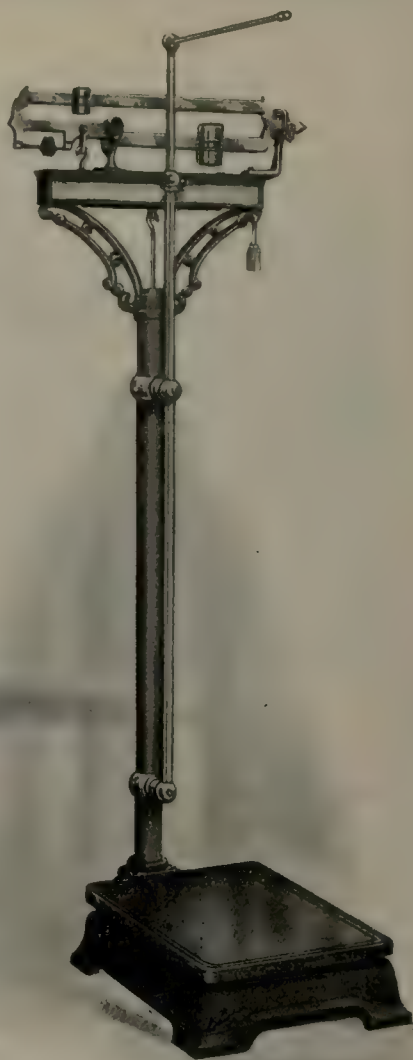
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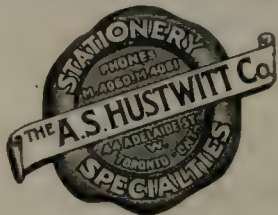
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Vol. VIII (XIX) Toronto, September, 1915

No. 3

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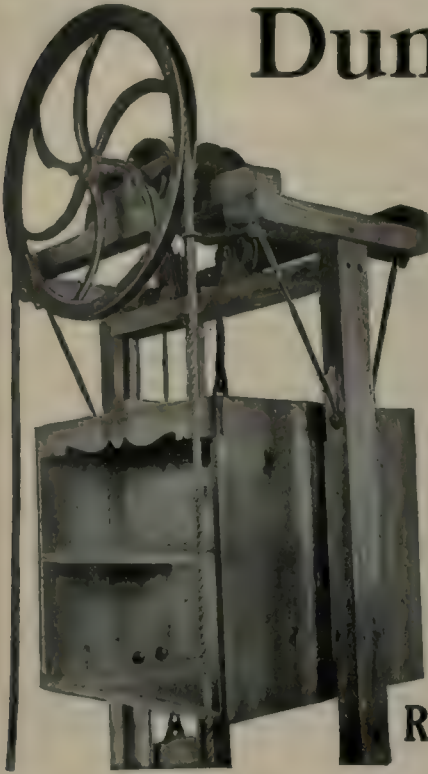
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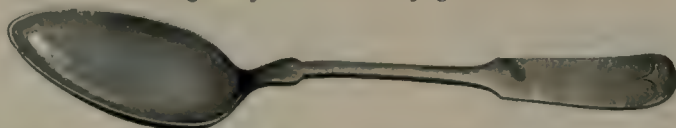


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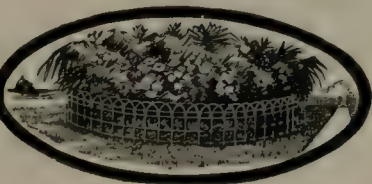
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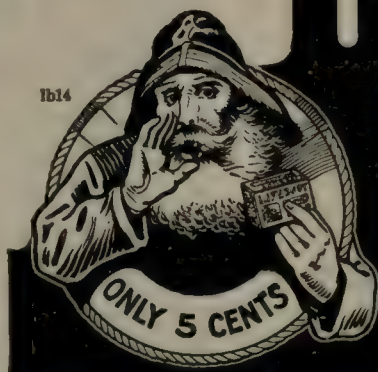
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Doctor—a Word about Xanthin —and Caffeine

As you well know, it is xanthin in the bodies of the young that gives them their characteristic vivacity, agility, and enthusiasm. And it is because age lessens this supply that age is sedate and conservative.

In this connection it is interesting to note that xanthin belongs to the same family or chemical group as caffeine. Both are known to the chemist as dioxypurins. Xanthin is found in the bodies of animals, including man, while caffeine is found only in plants such as coffee, tea, cocoa, mate, also in Coca-Cola. To make this family relationship closer and more interesting the scientists now tell us that caffeine, after being digested and assimilated, is converted into a substance called paraxanthin, which is a twin brother of xanthin.

But more interesting still is the similarity between the twins, xanthin and caffeine, in their effects upon the human body. If xanthin is in reality the substance which gives to youth its vivacity and alertness, then caffeine, its twin brother, may be regarded as a vegetable substitute for xanthin and we thus have a logical explanation of why the caffeine-containing beverages refresh and invigorate the body. In old age, when the fire of youth is burning low and the supply of xanthin is nearly exhausted, may it not be that

caffeine, as contained in Coca-Cola, tea, coffee, etc., serves a useful purpose in refreshing the nerves and muscles, and renewing the vitality as well as the sensation of youth?

Coca-Cola belongs to the same class of food products as tea and coffee, viz., the caffeine-beverages. Though they differ in flavor they are similar in effect, for caffeine is their common and only active principle. It is the caffeine that relieves fatigue and refreshes mind and body, not by *artificial* stimulation, but by a *natural* process analogous to that produced by the xanthin of the human body. Xanthin is a normal ingredient of the blood and flesh of all animals (including man) and is a refreshing principle of meat extracts, such as beef tea. Its action is similar to that of caffeine; in fact, when caffeine enters the body it becomes a xanthin. The caffeine beverages, therefore, have their counterpart in the *normal* human body, in the form of xanthin, and hence some scientists have classed them as "*natural*" stimulants in contradistinction to the "*artificial*" stimulants such as alcohol, nitroglycerine, strychnine, etc.

Other Matter for the Asking, Doctor

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THE COCA-COLA CO.
TORONTO, ONT.

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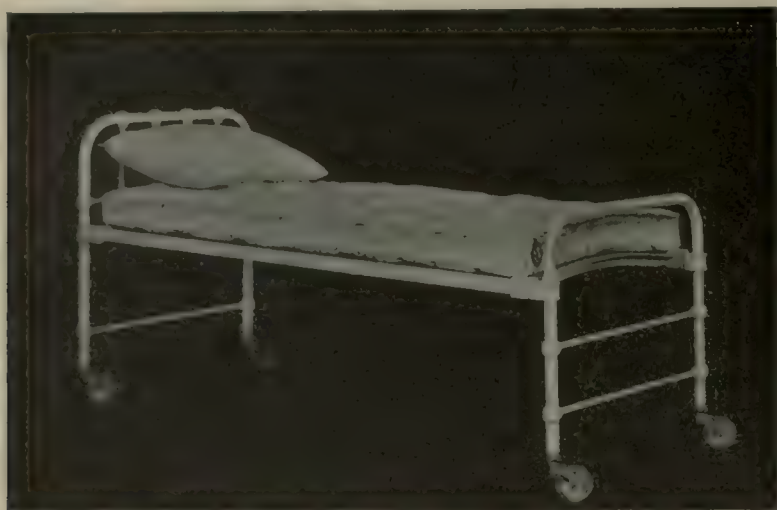
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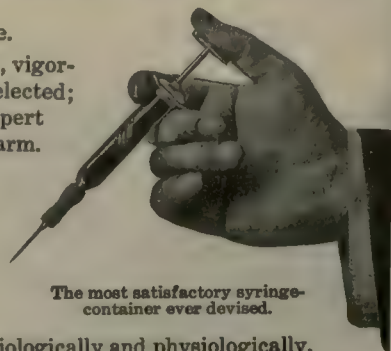
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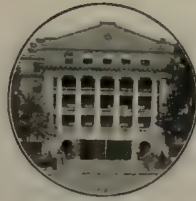
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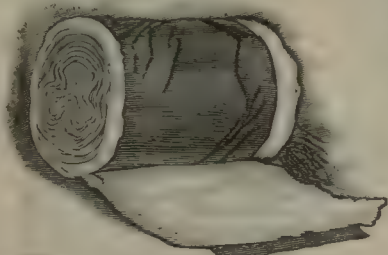
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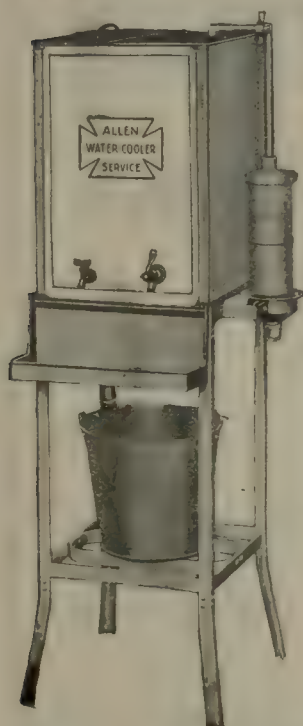


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The Hospital World

(Incorporating The Journal of Preventive Medicine and Sociology)

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No. 3

Editorials

THE SAN FRANCISCO MEETING

To speak without hedging, the San Francisco meeting of the American Hospital Association, held in June last, was largely a failure.

A splendid programme had been prepared by the late President before his untimely demise. The First Vice-President did not act. The others kept well in the background. The Secretary did not attend the meeting, nor were the Association records forwarded—an omission which caused considerable confusion and trouble to the acting officer. The absence of the Association's faithful Treasurer caused great disappointment, not only at the conference, but to the party in the special train arranged for by him. Without doubt both of these important officers are to be credited with excellent reasons for not attending, but because of the sad circumstance of the President's death, their absence was most unfortunate.

The attendance was small. The place of meeting was not wisely selected, being inside the Exposition grounds, to reach which a fee had to be paid. Many of the members, being nurses, were attracted to the great conference of nurses, which held contemporaneous sittings. Many of those whose names were on the programme were absent, and their papers had to be read by others—always an ineffective proceeding. Interest in those which were presented lagged, and the discussions were limited.

This combination of unfortunate happenings, which of necessity spelled a measure of failure, shows the need of certain radical changes in the Association constitution and conduct.

The Association should be one of hospitals rather than individuals, the latter attending as representatives of their various institutions. Until that change

takes place, economy in time and purse of the members should be considered in arranging the place of meeting.

A more democratic and sensible appointment of the Nominating Committee is required, and new blood is needed in the other committees.

The absence of both Secretary and Treasurer shows distinctly the need of a permanent Secretary whose attendance could be counted upon and who could, if need be, act for the Treasurer. The long-continued and untiring service of this latter officer has earned the Association's appreciation and warmest thanks.

VOLUNTEER HOSPITAL SERVICE

THE problem of the reduction of cost in hospital treatment and in nursing of people of moderate means, with which we dealt somewhat in our last issue, may find a hint of solution in the war hospital service as at present constituted.

It is generally acknowledged by medical men working in the large base hospitals that most efficient service has been rendered in these institutions at an unusually low per capita cost as compared with our permanent general hospitals on this side.

The American Ambulance Hospital in Paris is as perfectly equipped and efficiently conducted as any of our modern large civilian institutions. Taking it as an instance, the cost per patient per day has been kept under \$1.40. In view of the fact that hospitals

in New York and Boston of the same grade have a per capita cost per day around \$3.00, the reduction seems phenomenal.

This economy of operation is made possible almost altogether by the system of volunteer nursing. The number of trained nurses in the American Ambulance Hospital is small, but by the aid of volunteer, or what we may term auxiliary, nurses and orderlies, it has been possible for them to carry on their arduous work most successfully.

These volunteers are secured from the many American women and men resident both in France and on this side, who asked to do personal service in this direction. After being put through a stiff process of selection these volunteers are placed in the wards, each under the supervision and orders of a trained nurse.

It is the general testimony of the medical men that these auxiliaries have done and are doing excellent work, many of them showing fine qualities as nurses, and eventually being given a considerable degree of responsibility.

One of the leading surgeons of Harvard Medical School, just returned from a three months' residence at the hospital, makes the pronouncement: "From my point of view as a surgeon and temporary hospital executive, the volunteer system as practised at the American Ambulance is a most pronounced success."

Volunteer service is, of course, only a war-time condition, but the success of the system carries with

it proof that good nursing service can be rendered by other than the diploma graduate of the training school; and that the ability and the desire to use it should be utilized outside the war zone and for the general benefit.

The household nursing associations, which have recently sprung up in various cities, combining, as they do, the service of both graduate and auxiliary nurse, are rapidly growing exponents of this system, and through them it is able to carry skilled nursing into the home at a cost within reach of the average purse.

In our larger general hospitals the training school students take the place and render the service done by the volunteer nurses in the war hospitals. Yet because of this problem that is waiting solution, of how to bring hospital treatment and efficient nursing to our people of moderate means, it is well to place on record this testimony of men competent to pronounce opinion that volunteer (or auxiliary) workers are proving their ability and value in the war hospitals.

A CO-OPERATIVE HOSPITAL

JUST two years ago, in July, 1913, an agreement that promises to prove epochal in medical annals was signed between Yale University and the Honan (Chinese) Government.

This agreement was developed entirely on the initiative of the Chinese themselves, and meant the

establishment of a medical school in Honan having standards equal to those of the best schools in America.

This school is called the Honan Yale Medical School, and includes two nursing schools, a hospital and a research department for diseases peculiar to the country.

This newly initiated co-operative work is one of great moment, inasmuch as it marks the beginning of a vast medical advance and development in medical work in an hitherto almost undiscovered country, medically speaking. It also marks the first step in a co-operation between the two civilizations that may reach a long way out and up in other educative branches.

The wonder is not that Yale should stretch out to do this thing, but that it should be asked for by the Honan Government in the name and at the instigation of its people.

For several years Yale has been helping the Chinese of Honan Province in making sanitary reforms, and by so doing has won the people's confidence and good will. When, therefore, in 1913 a large gift was secured in America for the erection of a new Yale Hospital, the Chinese were on the alert, and at once petitioned that the hospital and an attached medical school might be established in Honan under Yale-Honan co-operation and support.

Yale agreed, and a working agreement was drawn up between the two authorities. The Honan Government is to provide the necessary buildings,

costing about \$200,000 (Mexican), and an annual amount of \$50,000 in the same coin towards maintenance of the school and hospital. Yale undertakes to build a hospital costing \$150,000 gold and also to pay the salaries of fifteen doctors.

The land has been bought; \$20,000 has been already expended. The hospital and school are organized and lodged in a large temporary building, pending the erection of permanent ones.

Control of the institution is vested in a board of managers consisting of twenty members—ten Chinese and ten from Yale. The Yale authorities went into the partnership with some misgivings. They feared difficulties of adjustment in such delicate matters as that of religion, of faculty and staff appointments, of language. But these fears were all removed by the Chinese. Their realization of the value of this school and hospital in the medical development of their country made it easy for the Yale men to adjust details without impairment of a high grade of efficiency, measured by Western standards.

The agreement insists that the faculty physicians must be men of moral character, that students are to have entire religious freedom, although the teachers are also free to give religious instruction if they choose. Professional management of the hospital and school is left with two members of the executive committee, and entire responsibility in all technical matters has been placed voluntarily by the Chinese in the hands of the Yale medical staff.

Appointments are made by the medical members of the executive, and the Chinese were unanimously of the opinion that the medical graduates should have a good working knowledge of English and that the instruction should be in English.

This unique co-operative agreement is working most satisfactorily up to the present. The hospital, as well as the medical and nursing schools, are in full operation, the former having some fifty or sixty students at the latest reckoning.

The movement is one never before attempted in medical education. It is a difficult and somewhat delicate enterprise, one requiring much wisdom, tact, and breadth of view, but earnestness and enthusiasm on both sides are putting it through. If such a coalition proves possible in Honan it should also be workable in other parts of China—and outside.

There is a suggestion of superb opportunity for hospital and medical men in this new and wonderful co-operative work.

WATER CURES

THE fact that many of our hydrotherapeutic institutions are not abreast of scientific development is being recognized in the medical world.

Air, sunlight and water are curatives recognized as of higher value to-day than a decade ago. The two former cannot be fenced about or financially exploited; but not so with medicinal waters, and

these have not been properly protected by the state or the profession.

Health resorts of any kind are national assets, and, in some countries, baths are protected by the government. This condition exists on the continent, but, unfortunately, not on this side. The continental watering-places have world-wide reputation. The wealthy everywhere patronize them.

Modern research is revealing the necessity for closer medical supervision in connection with this curative agency. It is now discovered that any particular kind of water has differing effects in different places, due to climatic and other factors.

In the larger hospitals of Europe one sees a bath house attached as part of the institution, and baths are used as treatment in various diseases. Few, if any, of our American and Canadian hospitals have medicinal bath houses on their grounds as a department. Here and there there may be found a rarely used hydrotherapy room.

America has several fine watering-places, but these are not giving fully satisfactory results, and only an occasional sanitarium is using the water cure in a rational way.

This department of therapeutics, for such it has become, should be standardized. It is time it was taken out of the hands of professional exploiters—barbers, bar-tenders, and runners who are so ubiquitous in many of our leading water resorts—and placed under the direction of reputable physicians who are specialized in this field of work.

As it is to-day, the record of one water resort is unfortunately the record of the majority. This one became celebrated through virtue of its mineral waters. The bath business grew, and all associated with it, both professional and business men, prospered. But gradually unprincipled doctors of no standing and of inferior qualification began to over-exploit the place and take undue advantage of the patrons. Bar-keepers and barbers were employed as touts for certain medical men and certain hotels. The masseurs began prescribing on their own account, advising their patients with assumed professional aplomb. Visitors suffering from dilated hearts, aneurysms, nephritis, and various neuroses, put themselves into the hands of these ignorant rubbers and, suffering the ill consequences, left the resort to kill it by dispraise.

The state should take up this matter and appoint a commission to investigate and if need be close up all water cures the conduct of which ranks below decent ethical standing.

Another imperative need is that medical students and nurses should be taught hydrotherapy. Only one among many doctors at present knows how to prescribe bath treatment according to the findings of modern research. Until proper instruction is given in the subject little reform can be accomplished.

Our large hospitals should not be considered complete until each includes a medicinal bath unit placed under the direction of a medical man who is also a

hydrologic specialist. His duty would be to prescribe and direct scientific bath treatment for those patients who would be benefited thereby. He should also give the much needed instruction in hydrology to internes, students and nurses.

Occupying, as it now does, an accepted place in medical therapeutics, it should be properly safeguarded and standardized by the profession.

Original Contributions

LITTLE JOURNEYS

BY DR. JOHN N. E. BROWN,

Superintendent, Henry Ford Hospital, Detroit.

THE BURKE FOUNDATION.

THE first group of buildings of the convalescent home of the Burke Foundation, at White Plains, some twenty miles from New York City, is nearing completion. It is built on the pavilion plan.

This Home not only receives suitable patients from the scores of hospitals in New York City, but from private homes as well. Patients suffering from mental, incurable and infectious diseases will not be accepted. No fee is charged in any case. The length of stay averages about three weeks. In other convalescent homes this period has been found to be the average length of stay. It is about the length of vacation the average earnest worker cares to take. At the end of three weeks' holiday there is a feeling of uneasiness and anxiety to get back to the harness.

The White Plains institution accommodates some one hundred and fifty cases. Unless absolutely necessary, medicines are not prescribed. Nature's remedies—fresh air, quietness, grass, flowers, birds, sun and shower, the smell of fresh earth will take the place of drugs. Doctors and nurses are tabooed as much as possible.

Most of the patients before going to White Plains are taken to the central receiving station at 325 East Fifty-seventh Street and thence by a motor bus to White Plains. This is a two-hour ride. The feebler convalescent patients who may be required to be carried in a prone position, are conveyed in a speedier and easier riding ambulance. A day or two in bed after the journey generally recuperates the new patient, and

prepares him more fully to enjoy the Home. He not only enjoys the sights and surroundings, but participates in amusing games and suitable occupations.

The sexes are kept rigidly apart, except for religious services, ball games and the like. They, however, are within sight of each other, and will be able to maintain an interest in each other that is actually stimulating and consequently is of certain therapeutic value.

For those who suffer relapse an infirmary is provided somewhat remote from the other buildings. They are kept out of observation as much as possible. Everything about the place suggests health and strength.

Dr. Fred. Brush is the superintendent. Every hospital superintendent should see the poetry in life—the fun as well. Dr. Brush sees both. Read his recent book of verse, “Songs of the Susquehanna.”

MANHATTAN EYE AND EAR INFIRMARY.

Our party only had time to spend a few minutes at this well-conducted hospital.

In the out-patient department we noted that the ends of the seats were labelled with the names of the doctors.

In preference to electric light, gas lamps are used for the examination of the eyes.

We saw some plugged unused pipes in the nose and throat department. These were put in with the idea of using a central compressed air apparatus. Our guide explained this was unnecessary, and therefore these pipes are not utilized.

Small electric sterilizers were in proximity to the sinks beside the nose and throat examining chairs, thus facilitating the quick sterilization of the instruments required.

In conjunction with the eye dispensary there is a manufacturing optical department. It is more than self-sustaining.

THE HOSPITAL FOR RUPTURED AND CRIPPLED.

THE first question that may arise in one's mind on the arrival at this hospital is why the word "ruptured" is associated with the word "crippled." The answer is probably found in the fact that both of these conditions call for the use of trusses and supports.

On entering the building one steps into a pleasant marbled lobby. The color scheme of the interior is a light gray for the most part. In some places the lower walls are of a darker shade and the ceilings a lighter.

When asked if his nurses found the tile floors hard on their feet, Mr. Bartine replied, "They bear the tile floor very well, and did not seem to mind it until some hospital floor experts reminded them of the fact." The hardness was noticed when they first occupied the new building, because the floors of the old building were wooden.

Mr. Bartine is an ingenious man. He has invented a toilet rack which we saw hanging on the heads of many of the beds and in the utility rooms. He prefers keeping these holders in the utility rooms. The holder consists of a piece of wire ingeniously twisted into circles, curves and angles, so as to hold a hair brush, tooth brush, comb, washcloth, towel, and we remember not what else. Mr. Bartine has patented this article. It can be procured from him or from the Kny-Scheerer people for seventy-five cents.

Mr. Bartine is now at work upon an operating room light. He is arranging to place a row of electric lights all around the operating room at the junction of the ceiling with the walls. Over these lights will be placed slabs of translucent glass making a triangular space all around. Another row of these lights will be placed in covered trenches in the wall about the height of the operating table. Mr. Bartine claims that this device will provide the best light for operation purposes. It has been highly recommended by architects, eminent surgeons, and also by an eminent German psychologist, who, he asserted, knew as much about operating rooms as he did about psychology, which indicated that our host was interested in the categorical impera-

tive and the *elan vital*, as well as in toilet racks and operating room lights.

The wards of the Hospital for Ruptured and Crippled are well ventilated, clean and cheerful.

It is interesting to learn that of the thousands of patients who yearly apply for treatment of hernia more than eighty or ninety are not operated upon, but provided with trusses prescribed and manufactured at the hospital.

We were shown the machine shop where several mechanics were busily at work hammering metal sheets, welding strips and bending bands for the supporting parts of the splints. In another room leather workers were attaching straps and buckles. In still another room women were at work with cloth fabrics which may be needed.

In the clinic, hard by, surgeons were applying these splints and also plaster of paris casts to tubercular knees, feet, bow-legs, knock-knees and crooked backs. One poor little girl with cervical disease was having a jury mast adjusted. We saw also a number of these children lying prone upon banana carts, upon which they propel themselves. On these they lie for days, weeks and months. On the floor in one large room we noticed a frame close to the wall, which is to prevent these little travellers from bumping into the wall with their carts. There is a large school and assembly room on an upper floor connected with an airy, sunny loggia. The wall of this room is covered with illustrated nursery rhymes. Several blackboards covered with juvenile literary poetical selections in script are in evidence. A piano also indicated that music has its rightful place in the education of these handicapped children.

Our party were kindly asked to luncheon with Dr. Bartine in his pleasant quarters in the hospital.

THE NEW YORK SKIN AND CANCER HOSPITAL.

THE NEW YORK SKIN AND CANCER HOSPITAL is located within a stone's throw of the Post Graduate Hospital. This building is an old one. An effort is being made to secure funds for a new

one. This institution was founded by one of America's leading skin specialists. Dr. Bulkley kindly showed us some of the cases under treatment.

They have a fulguration outfit here, which has been used to a considerable extent upon inoperable cases. They are using radium, but still find surgical operation the completest and quickest means of eradicating the disease in its early stages. Both Dr. Bulkley and Dr. Bainbridge (of the surgical staff) have published books recently on cancer.

Miss Burns, the genial superintendent, showed us through this well-conducted and worthy hospital.

THE POST GRADUATE HOSPITAL.

THE POST GRADUATE HOSPITAL is a multi-storied hospital on East Nineteenth Street, New York City. It is in the centre of a congested district, many poor living in the locality. It has a tremendous out-patient department. Some four hundred patients can be accommodated in its beds. It does a large amount of post-graduate teaching; and has some of the city's leaders in medicine and surgery on its staff.

It has a large number of small rooms at a comparatively low rate for people of moderate means.

Ample loggias are provided on the west side, for getting the patients out of doors.

This was one of the first hospitals to try out the lactoleum floor—now called plastic linoleum. The main constituents of this floor are sawdust, magnesium, linseed oil and cork. There is a resiliency about it; and in proper colors does not easily show dirt marks. It is oiled occasionally. It emits a faint aromatic odor. It is reported that it will not withstand acids or very hot water, nevertheless, it has been found to be one of the best of the so-called composition floorings.

Each section has beside a ward kitchen or distributing kitchen an additional kitchen, solely for the use of the special nurses. These women are often regarded as interlopers by the regular staff nurses. This second kitchen makes for convenience and harmony.

A pale yellow is the predominating color of the walls.

This fine hospital was planned, in the main, by Dr. Fred. Brush, who has been called to supervise and administer that great trust—The Burke Foundation. He is building the Convalescent Home of that name at White Plains.

THE MONTEFIORE HOME FOR CHRONIC INVALIDS.

THE new Montefiore Home, occupying a high commanding view in the northern suburbs of New York City, was built by Architects Brunner, Buchman and Fox—the pavilion type.

It is fireproof in construction, and cost \$1,750,000. It has accommodation for 450 patients. The various pavilions are connected by closed-in corridors; four of them being for patients. The central building consists of four storeys and a basement; the others three. A home is provided for one hundred and sixty employees. The main kitchen and central linen room occupy the service building. The patients requiring most nursing care occupy the central pavilion. Wooden railings at a convenient height protect the walls and give the ambulant and chair patients something to hold on to. A similar provision is made in the toilets, this enables chair-patients to help themselves to a considerable extent.

Dr. Wachsmann, the superintendent, who kindly showed us around, called particular attention to the patients' bathrooms. The tubs are on legs twelve inches high; the hot and cold water taps on the wall cannot be reached by the patients in the tubs, and so prevents scalding accidents; and there is a bell call hanging from the ceiling over the bath within reach of the patient.

Spacious day rooms allow patients to group themselves as they prefer.

One pavilion of fifty beds is devoted to surgery, including orthopedic work. In the basement is a Zander room with the usual mechano-therapy apparatus; a baking department with a complete equipment and an electro-therapy outfit.

The southern-most pavilion—two storeys in height—accommodates one hundred and twenty-four patients suffering from pulmonary tuberculosis.

The west pavilion has a metabolism ward and a special diet kitchen. The basement contains a morgue, autopsy room, X-ray and electro-cardiograph room. In the top storey are laboratories for pathology, bacteriology, physiological chemistry and cancer research.

It is pleasant to learn of the satisfactory results which have come from patient and prolonged treatment of some of these incurable cases.

A summary of the treatment as laid out by Dr. Boorstein, one of the orthopedic assistants, is as follows:

Each patient as soon as he enters the Orthopedic Department has his casts, X-ray of the joints, and photograph taken, and a careful description is made of the joints so that a good record of the changes can be kept. Then a careful examination for place of entrance of infection is made. The digestive tract is examined by means of stomach and duodenal tubes, and radiograms of the tract, after a bismuth test, are taken. The place of infection is treated, if possible. Any disturbance of the intestinal tract is corrected. Then, if acute symptoms are still present, the patient is allowed to be at rest for two or three weeks, during which time his joints are kept warm and local applications applied. The diet is very carefully regulated and enemata or colonic irrigations are given twice or three times a week with "steam boxes" on the intervening days, and light baths twice weekly. Bier's passive hyperemia is administered for six to twelve hours daily besides being left on all night, static electricity three times a week, exercises daily.

If patients are not in the acute stage the place of infection is cleared up if possible, then the regular treatment is begun, the diet being regulated at the same time.

BOILER ROOM ECONOMICS

BY THOMAS HOWELL, M.D., SUPERINTENDENT, AND PHILIP MURRAY, ENGINEER, NEW YORK HOSPITAL, NEW YORK CITY.

ABOUT ten per cent. of the expenditures of the average hospital are for the engineering department. It is, therefore, apparent that this is an important department. As such it deserves careful study and oversight. In this paper the writers discuss some commonplace engineering subjects, but make no attempt to treat them in an exhaustive or scientific manner.

The question as to whether a hospital had better produce its own electricity is one which is occasionally asked.

This question has been raised more frequently of late because, in the large cities at least, so many business houses for reasons of economy, convenience, and cleanliness, or to utilize space more advantageously are abandoning their electrical generating plants, and are buying their electricity from commercial plants. Their doing so naturally causes observing hospital superintendents to ask the question as to whether it would not be more advantageous for them to buy their current.

In this connection it must not be forgotten that the requirements of a business house or factory are very different from those of a hospital. The demands of a hospital are usually much more varied, and are continuous day and night, including Sundays and holidays.

While freely admitting that factories and business houses are frequently more satisfactorily served from a central plant it is nevertheless our opinion that hospitals, at least those with over eighty or a hundred beds, should produce their own electricity. Hospitals of this size will usually have heating plants, steam laundries, steam cooking apparatus, steam sterilizers, refrigerating plants, etc. These serve to create a demand for steam throughout every hour of the year.

The steam required by part of these activities at least can be used in making electricity, and this without any loss of

efficiency. In this way, electricity is produced as a by-product, and at a very insignificant cost. This is particularly true during the winter months when a large amount of steam is required for heating purposes.

Strange as it may seem it has been proved that steam which has passed through an engine is more efficient for heating purposes than the same amount of steam direct from a boiler.

Mr. Wright, Superintendent of the S. R. Smith Infirmary, Staten Island, reports that in 1912, the last year that the hospital purchased its electricity, its heat, light, and power cost was \$8,068.21. In 1913, with its own electrical plant, the cost was \$6,458.91, and in 1914 \$6,369.89. This is a saving of over 21 per cent. Other hospitals have shown equally satisfactory results.

COAL.

Bituminous coal will give better results, pound for pound, and dollar for dollar, than will anthracite, but in many cities the use of bituminous coal is prohibited on account of its tendency to produce great volumes of smoke. Where it is not permissible to fire with bituminous coal, one of the steam sizes, or cheaper grades of anthracite coal, is ordinarily used. These are known as pea, buckwheat and rice.

The size and quality of the coal best fitted for its use must be determined by each hospital by actual tests. At the New York Hospital we found by experience that the best grade of No. 1 Buckwheat is the most economical for our plant.

We pay about fifteen cents a ton above the regular price for No. 1 Buckwheat in order to obtain coal from a certain mine, because it gives us the best results. A trial of No. 2 Buckwheat, which sells for about fifty to sixty cents less a ton than the coal we are using, gave unsatisfactory results. Our experience with Pea coal was also unsatisfactory. It cost more per ton than the No. 1 Buckwheat which we use, and the number of tons burned was about the same.

What we would emphasize in connection with this subject is that every hospital should make careful tests to determine what coal best meets its requirements, and then to insist upon getting it.

FACILITIES FOR WEIGHING.

Some dealers are dishonest. Some dealers have dishonest employes. Sometimes honest mistakes are made in weighing. For these reasons no hospital which buys coal can afford to be without suitable wagon scales. We know of one large hospital which had no wagon scales because they were considered unnecessary and expensive. At the end of the year it was discovered that they were short nearly 1,000 tons of coal. It is unnecessary to add that an order for scales was placed immediately.

MECHANICAL STOKERS.

Mechanical stokers are occasionally of considerable service in bringing about boiler room economy. The Hospital of the Good Shepherd, at Syracuse, N.Y., installed a set, and in eleven months saved \$3,600 from its coal bill. Dr. Pratt writes concerning it as follows:

"It burns only the amount of coal necessary to obtain the steam pressure desired. The cheapest kind of soft coal can be used. As it is a self-feeder, one man can easily take care of two boilers and also look after the engine room. The mechanical stoker has this additional advantage, that being self fed from a magazine that is never allowed to become empty the cold air does not reach the fire nor metal work of the boiler, and so saves loss of steam and destruction of tubes and other iron work, as is the case when the door to fire box is frequently opened to throw on coal."

BOILERS.

Boilers must have sufficient capacity to produce the required amount of steam without forcing. They must be kept free of internal scales, and the tubes and flues must be frequently cleaned.

The brick work must be kept in good repair in order to prevent air leaks into the fire box and combustion chamber. It is very essential that the grate bars in the furnace be of a suitable design. If this is neglected a considerable amount of coal may be wasted.

The furnace doors should be tight, and only a sufficient admixture of air admitted to consume the gases leaving the furnace.

There should be a feed water heater of sufficient capacity to supply water to the boilers at about 200 degrees. Pumps designed to pump hot water are essential.

Much depends upon the fireman, and there are very few who are competent. A careless fireman will nullify all attempts to secure boiler economy.

When you inspect your boiler room observe carefully the work of the fireman. Notice whether he spreads the coal. To insure perfect combustion coal must be spread evenly and thinly over the fire.

In cleaning the fires the fireman should do so as rapidly as possible, as the open furnace doors allow the cold air to rush in and cool the boiler.

Care must be taken not to dump unconsumed coal with the ashes.

It is very essential that the water in the boiler be kept at the proper level.

A damper regulator is necessary, as it prolongs the life of the boiler and effects a saving in coal. However, with a mechanical stoker burning soft coal it cannot be used, for it defeats the purpose of the stoker and produces great volumes of black smoke.

BOILER SCALE.

One cause of boiler inefficiency is scale. This scale consists of impurities which are precipitated from the water when heat is applied to it. Scale is familiar to you all. You have seen it in the steam kettle on the kitchen range.

Scale collects on the inside of a boiler, on the tubes, shell, and head. It acts to thicken these, and accordingly more fuel is required to produce the requisite amount of steam, as the heat must pass through the iron of the boiler and also through the scale, which is a poor conductor. It is apparent, therefore, that the more scale there is the greater the waste of fuel.

Many engineers favor the use of compounds in removing boiler scale. Our results with compounds have not been satis-

factory because of their tendency to cause foaming in our boilers, and thus carrying the water from the boilers to the engines, a dangerous condition. Under certain conditions these compounds may be of service, but we have found it safer and more economical to remove scale by hand.

ENGINES.

Opinions are divided as to the most economical engine, but no matter what kind of engine is installed it must be given careful oversight in order to obtain economical results.

There is considerable loss of steam and consequently of coal when the internal parts of an engine are neglected. Care should be exercised in seeing that all valves are properly adjusted, and that the piston and springs are kept in proper alignment.

Leaking stuffing boxes and valve stems show want of care on the engineer's part.

It is very desirable that steam traps on high pressure systems be kept in good working condition, as they are a source of loss if not kept in proper order.

PUMPS.

Elevator, house, and other service pumps are often overlooked, and their leaking pistons and steam valves are a great source of loss that is not apparent to the casual observer.

EXHAUST STEAM.

With non-condensing engines exhaust steam is a fruitful source of loss, especially during the summer months. But, as stated before, during the cold weather this steam can be used for heating purposes, for which it has been found more efficient than direct steam. Exhaust steam can also be used in the laundry drying rooms. It is not practicable to use it for cooking purposes. It should be, however, used in heating warming tables, etc.

One of the great uses of exhaust steam is in heating water for the house service. It is a decided waste to use live steam for this purpose.

At the New York Hospital water was formerly heated by live steam, and the results were unsatisfactory on account of the expense, and because the thermostatic control did not always control, and as a consequence the water was frequently either too hot or too cold.

Finally a hot water heating device operated by exhaust steam was installed, and while it has no thermostatic control it has proved very satisfactory.

This change resulted in an annual saving of approximately \$3,000.

LAUNDRY.

In the equipping of a laundry plant it is desirable that each piece of machinery have its own motor attached, as in this way it is possible to operate any one machine without operating the entire plant.

Electrically-heated flatirons and body ironers consume a great amount of electricity. At the New York Hospital we have found steam presses very much more economical than electrical body ironers and also more useful and easier to operate. We estimate that our two electrically heated body ironers consumed about \$3.00 worth of electric current daily. They were replaced with three steam presses, and the cost of operating these is not appreciable.

ELECTRIC LIGHTING.

When we used carbon filament lamps at the New York Hospital, and were perhaps a little careless generally about the amount of electricity consumed, our ampere meter during the winter months frequently showed that we were delivering 900 amperes of current. Since Mazda lamps of the tungsten type were substituted for the carbon filament lamps, and other economies introduced, the ampere meter rarely indicates that we are using over 450 amperes.

Too little thought has been given to the lighting of institutions. In many instances the lamp fixtures are not properly located and the number of lamps is too large or too small. For instance, in one of our small sterilizing rooms, which is very

high, we had a cluster of eighteen lamp bulbs against the ceiling. By lowering the fixture we got just as efficient light with four bulbs.

MINOR ECONOMIES.

By sifting the ashes from the kitchen ranges it is possible to reclaim fifteen to twenty tons of coal annually. However, where gas sells for eighty cents or less a thousand cubic feet, it will be found much more cleanly and convenient and about as economical to burn gas in the kitchen range. We have done our cooking with gas for a year, and have found it very satisfactory. We should not consider again the use of coal in kitchen ranges.

To get the best results out of a refrigerating plant it must be carefully looked after. During the winter months, when the demands upon it are very light, the engineer should thoroughly overhaul it. It is particularly essential that he should see that the circulating water coils are thoroughly cleansed. If these coils are allowed to get choked up with sediment the efficiency of the plant is reduced to the minimum.

We have found that neglect to clean out the coils of our plant for six or eight months will reduce the efficiency fifty per cent. In other words, before the tubes are cleaned out it is necessary to operate the plant twenty-four hours a day, but after they have been thoroughly cleaned it is only necessary to operate the plant twelve hours a day.

It would hardly appear necessary to call attention to such obvious wastes as leaky pipe joints and valve stems, and improperly covered steam, hot water, and brine pipes. But there are many well managed hospitals where too little attention seems to be paid to these sources of waste.

Superintendents will do well to thoroughly inspect the hospital piping at frequent intervals. They should insist that the engineer promptly and properly repair all pipe leaks instead of resorting to tin cans to catch the drip.

If you are planning a new hospital insist that the steam, hot water and brine pipes be so located that they are easily accessible for repairs and re-covering. Pipes buried in the walls and floors have given us no end of trouble and expense at the New York Hospital.

It frequently occurs that the engines, boilers, dynamos, motors, refrigerating, and other machinery selected for a hospital lack in that they have no reserve capacity. This is a mistake. Machinery worked to its full capacity soon wears out, whereas machinery worked below its capacity lasts a long time.

In the case of a machine worked to its capacity a little additional strain placed upon it results in a breakdown. Generally this breakdown comes at the most inopportune moment. The inadequate refrigerating plant breaks down during hot weather, and the inadequate heating plant during cold weather.

It is a pretty wise rule to figure out the plant capacity required and then double it.

Hospital Nurses Graduate

THE graduating exercises of the Toronto General Hospital School for Nurses were held on May 20th, in the auditorium of the hospital. Miss Jean Gunn, superintendent, gave a report that showed the school to be greatly increased in numbers and thoroughness. The preliminary course has been lengthened to six months and in the future two classes will be taken, in April and October. The number of applicants to the school was 1,746, of which 90 were admitted on probation, 27 were finally accepted as pupils, 46 remained on probation. There were 10,496 special days of nursing, making an average of 29 special nurses a day. It was also reported that 46 graduates of the school had left for active service at the front. Mrs. Hendrie, wife of the Lieutenant-Governor, presented the diplomas and class pins to over 40 nurses. Venerable Archdeacon Cody delivered an inspiring address.

Items

Hamilton Hospital for the Insane

THE officers and employees of the Hamilton Hospital for the Insane subscribed last month a sufficient amount to purchase a machine gun for the next Canadian contingent to go to the front.

New Hospital for Port Hope, Ontario

THE Port Hope Hospital Trust has just awarded the contract for a new hospital. The new building, which will be of fire-proof construction, will cost about \$30,000 equipped, and work will be commenced at once. The present hospital building will be converted into a nurses' residence.

No. 2 Canadian Stationary Hospital

NO. 2 CANADIAN STATIONARY HOSPITAL has, we understand, been recently transferred to the Dardanelles. As our readers are aware, this hospital includes a number of Toronto men who are serving in connection with it. No. 2 Stationary Hospital was the first Canadian unit to be sent to France. Major (Dr.) C. H. S. Elliott, 92 St. George Street, and Captain (Dr.) R. S. Pentecost are among its officers, who will represent Canada when the hospital arrives at the gateway to Constantinople.

Reception at the Women's College Hospital

THE Board of Directors and Medical Staff of the Women's College Hospital and Dispensary gave a reception Wednesday afternoon, August 4th, from four to six, to introduce their newly-appointed Medical Superintendent, Dr. Geraldine Oakley. In the absence of the President of the Board of Directors, Dr. Margaret Johnston, Chairman of the Advisory Board, received

the guests. In spite of the weather there was a good attendance and a very pleasant time was spent, Dr. Oakley's friends in the medical profession being pleased to welcome her back to Toronto.

The Women's College Hospital

THE opening of the Women's College Hospital at 125 Rusholme Road took place on Saturday afternoon, July 17th. The day was beautifully bright, and a large crowd of enthusiastic people availed themselves of the privilege of seeing over the new hospital.

The President, Mrs. Annie O. Rutherford, aided by the members of the medical staff, received the visitors in the lower hall, after which the members of the reception committee escorted them through the building, which has nine wards, with accommodation for twenty-one beds.

The ground floor is devoted to medical work, the second floor to surgical work and nurses' quarters. The operating room on this floor is lighted by a new window almost the entire length of the north wall, and is equipped with a combination instrument, water and dressing sterilizer. The upper floor is devoted entirely to semi-private and public obstetrical wards, with accommodation for nine patients. Each of these wards opens out on a commodious fire escape. Two of the private wards have been furnished and named—one by the Corinthian Chapter, No. 12, of the Eastern Star, and the other by Miss White, of Jarvis Street.

After their tour of inspection the visitors returned to the lower hall where the dedicatory service was held. Mrs. Rutherford presided with her usual grace and ability. Letters of regret were received from the Lieutenant-Governor, Mayor Church, Dr. Bruce Smith, the Rev. Dr. Grant, and others. A letter from the Government, stating that the hospital was to be classed with the General Hospitals and receive the Government grant, was received with hearty applause.

Regret was expressed at the unavoidable absence of Dr. Jennie Gray, mother of this work, who was the first woman to

conduct a clinic for women in the year 1896, and who later admitted the first patient into the Women's College Hospital on Seaton Street. Owing to this, Dr. Skinner-Gordon was called upon for a history of the work from its beginning. She gave some interesting incidents that showed there was a unique work to be done by women.

Miss Ratté, superintendent of the work conducted by the Presbyterian Church among girls, expressed her joy at being present, and said that when her girls approached their critical time she was glad that she would now be able to place them under the mother care of the women physicians.

Dr. C. J. O. Hastings, M.O.H., in his usual felicitous manner thanked the Board for the honor conferred upon him, which was especially marked as this was evidently "Ladies' Day." He said that the women physicians were in a better position than he was to know cases of reticent, timid women who could not get up courage enough to consult a physician of the opposite sex. He congratulated the ladies on their equipment, gave them his best wishes for success, and stated, through an anecdote, that if only one life were saved the hospital would have justified its existence.

Mrs. Torrington, chairman of the finance committee, spoke of the financial aspect of the work.

Thanks were expressed to Miss Martin, who has been Superintendent of the Seaton Street Hospital for more than two years, and to Mr. H. B. Gordon, who had given special attention to the alterations.

Music was furnished by Redfern Hollinshead. The dedicatory prayer was then offered by Rev. Dr. Treleaven, Chairman of the Toronto Methodist Conference. Refreshments were served on the beautiful lawn under one of the magnificent shade trees. It is a charming place and suggests quiet restfulness. The spacious grounds (109 x 200) furnish room for future developments.

The Board are to be congratulated on securing the services of Dr. Geraldine Oakley as Medical Superintendent.

Ontario Graduate Nurses

THE annual meeting of the Graduate Nurses' Association of Ontario was held on May 22nd, in the Clinic Room of the Toronto General Hospital. Mrs. Tilley, of Brantford, presided. After the opening with the nurses' prayer, Miss Pringle read the report for the year: a membership of 300, with 100 new members, being announced. The Treasurer's report showed \$355 from fees, leaving, after expenses, a balance of \$129. The report of the Neighborhood Association, in connection with the church, was read by Miss Jamieson. The report read by Miss Gunn, on the Red Cross work done by the Kingston chapter of the Queen's University Hospital; from the Peterborough chapter, which will work until the close of the war for the Red Cross; from the Hamilton chapter, also for the Red Cross, under Miss Denison, were received with great applause.

Miss Helen McMurrich read a thoughtful paper on "Institutions and Social Laws Connected With Social Service Work," and following that, Miss Paull gave a paper on the experiment of teaching young Jewish girls different departments of housewifery, especially in the Ward.

Miss Flaws finished the session with an excellent paper written by Miss Robina Stewart, on "Household Enemies, and How to Deal With Them," with varied description of the different pests, from rats to roaches, and methods successfully employed for their extermination. The assembly then adjourned to the Nurses' Residence, for afternoon tea, being welcomed by Miss Gunn, and were congratulated on having had a most interesting and enjoyable meeting.

Book Reviews

The Care of the Teeth. By CHARLES A. BRACKETT, D.M.D., Professor of Dental Pathology in Harvard University. Published by Harvard University Press, Cambridge.

There is published a series of Harvard Health Talks on such subjects as The Care and Feeding of Children; Preservatives and Other Chemicals in Foods; Their Use and Abuse; The Care of the Skin; The Care of the Sick Room; and The Care of the Teeth.

The subject of the present review was delivered at the Medical School of Harvard University. It is intended to provide in easily accessible form modern and authoritative information on the subject of the care of the teeth.

The subject is treated in a very simple and logical manner. It shows the great benefits to be derived from a well-kept and clean mouth. The little book would prove of great value to physicians who wish to have a general information of the subject. Nurses cannot very well do without looking up this subject if they are to give the best to their patients.

Outlines of Internal Medicine for the Use of Nurses. By CLIFFORD BAILEY FARR, A.M., M.D., Instructor in Medicine, University of Pennsylvania. Lea and Febiger, Philadelphia and New York.

It is very gratifying to find a book in which the author gets the pupil nurse's attitude so completely as Dr. Farr has shown in this text-book. The style is clear and interesting, the material abundant, and the selection modern and practical. The nurse finds at hand all the necessary correct current information about the diseases which she may meet whether she practises in the war zone, as a school or district nurse, or in the homes of the

idle rich. The classification of diseases is in a new and unusual but satisfactory order. The book deserves immediate acceptance by the heads of training-schools, since there is also marked stress laid on the more old-fashioned and persistent diseases, such as typhoid and pneumonia.

PERSONAL

Geraldine Oakley, Toronto B.A. 1910, Toronto M.B. 1912, has returned to the city after three years hospital work in the Northampton Hospital, Northampton, Mass., and in the New York Infirmary for Women and Children, fourteen months as interne and four months as house physician. She comes as Medical Superintendent of the Women's College Hospital.

Miss Ann Forgie, who resigned the position of superintendent of the Galt Hospital and Training School, Lethbridge, Alberta, some months ago for the purpose of taking a well-earned rest, intends to return to hospital work this autumn. For four years Miss Forgie has managed the Galt Hospital at Lethbridge in a most efficient manner, and had done much to advance the standard of nursing in that province. Those who were connected with her in her work there certainly regretted her departure. We are pleased to learn that she is planning to take up hospital work again, and wish to state that any institution requiring a capable superintendent should communicate with her at Claremont, Ontario.

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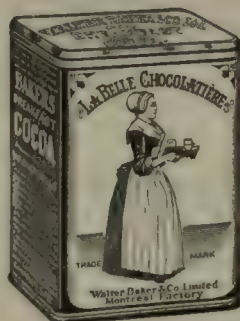
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BOOK REVIEW

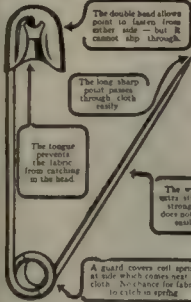
Principles of Hygiene (fifth edition). For Students, Physicians and Health Officers. By D. H. BERGEY, M.D., First Assistant, Laboratory of Hygiene and Assistant Professor of Bacteriology, University of Pennsylvania. Octavo of 531 pages, Illustrated. W. B. Saunders Company, 1915. Cloth, \$3.00 net.

This will prove an excellent guide book for all those engaged in sanitary work, as well as for the physician himself. The demand for books of such a class will be increased by the large number of medical men taking up army medical work at the present time, and for such the chapter on Military Hygiene will be especially valuable. Here the matter of examining recruits, food, training, clothing, and information regarding the value of inoculation for typhoid are all briefly discussed.

The other chapters grouped under such heads as Naval Hygiene, School Hygiene, Industrial Hygiene, etc., are likewise sound and readable. The inclusion of a full set of the Quarantining Laws of the United States and also the Interstate Regulations will prove useful and enhance the value of this most useful volume.

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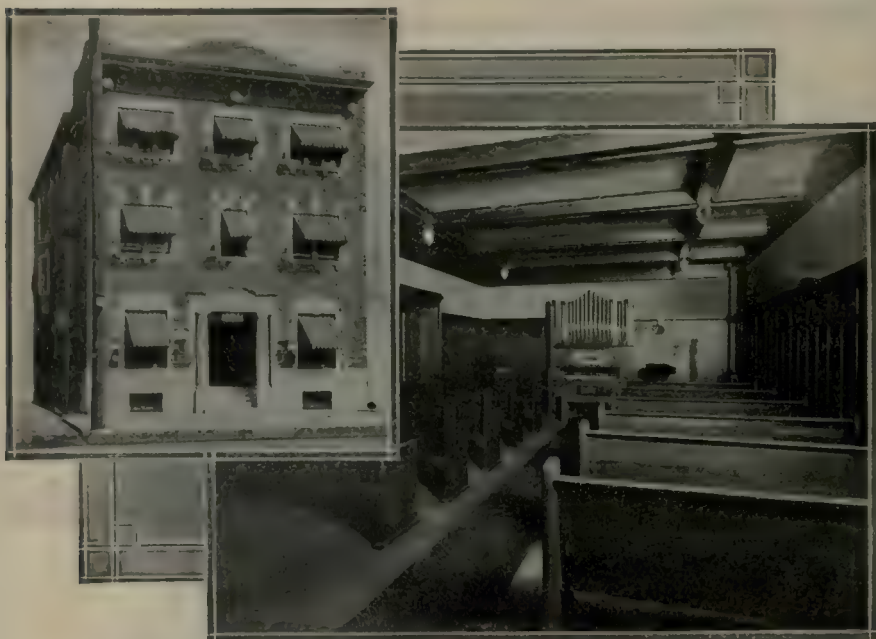
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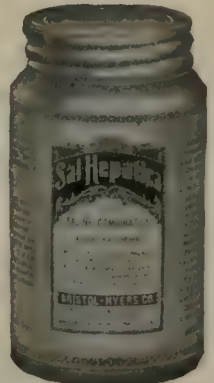
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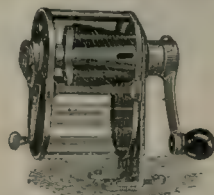
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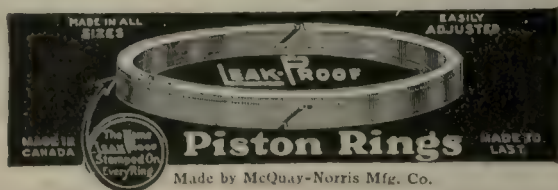
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THE OFFICIAL ORGAN
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Vol. VIII (XIX) Toronto, October, 1915

No. 4

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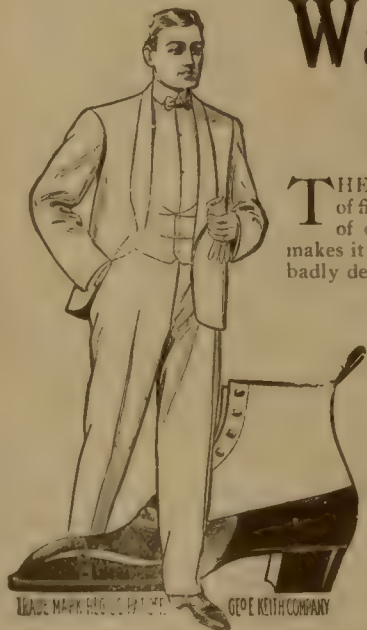
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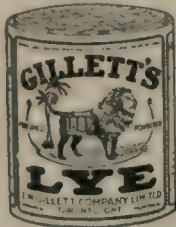
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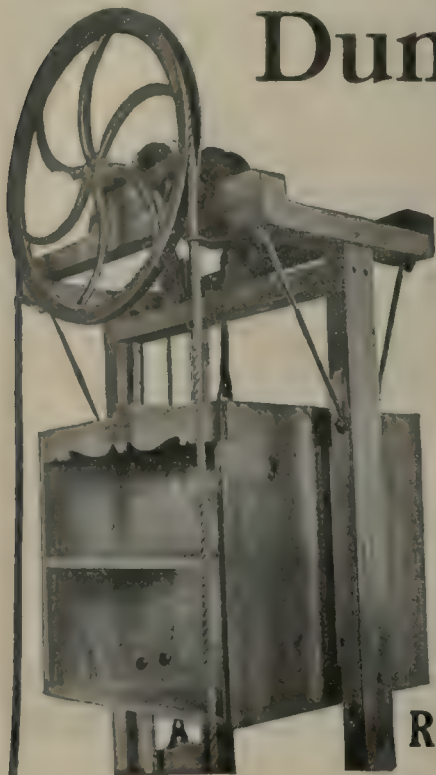
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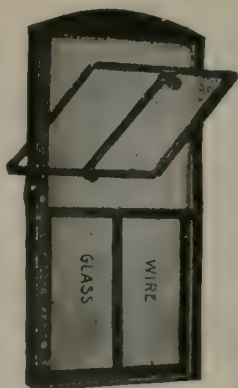
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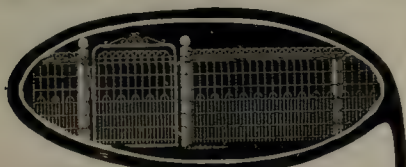
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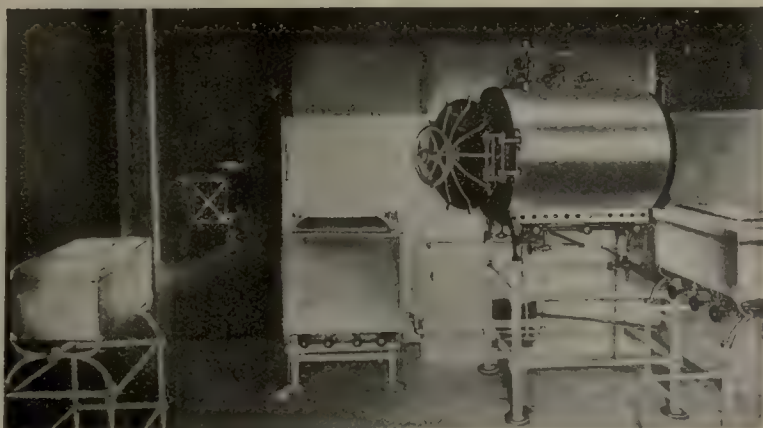
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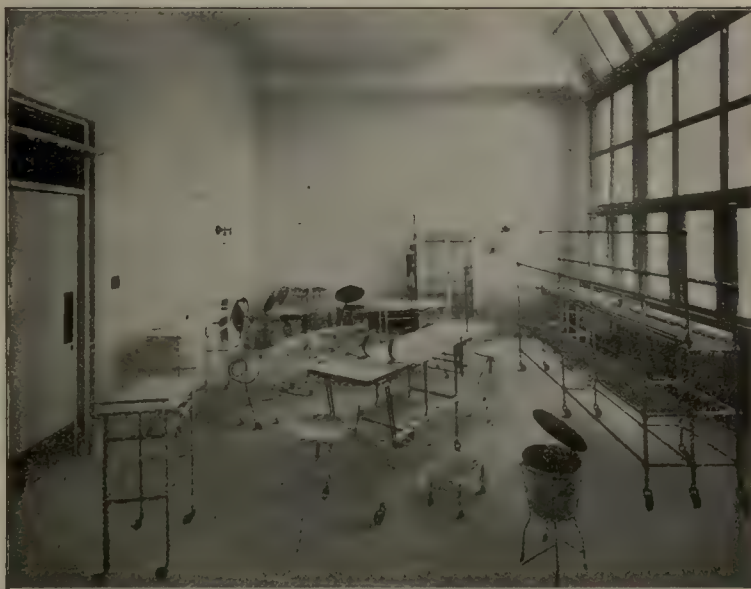
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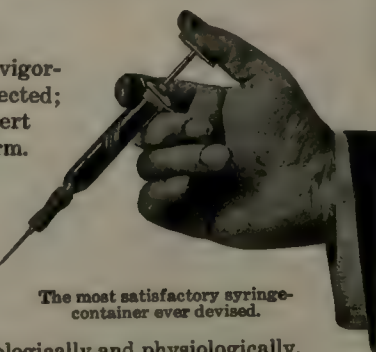
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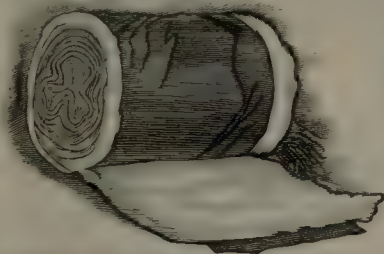
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No. 4

Editorials

HOSPITAL INTERNE YEAR

THE following colleges now demand of their medical students a fifth year, which shall be spent as hospital internes: The University of Minnesota Medical

School; the Leland Stanford, Jr., University School of Medicine; the Rush Medical College (University of Chicago); the Northwestern University Medical School; the University of California Medical School, and the University of Vermont. The licensing boards of Pennsylvania and New Jersey require that every candidate to be eligible for license to practise medicine in these states must have served at least one year as an interne in an approved hospital.

Doctor James Ewing, Professor of Pathology in Cornell, holds that the general adoption of a fifth clinical year, as it has been established in certain localities, is not for the best interests of medical education and would create a serious menace from which the American profession would find it difficult to recover. Universities should not, he holds, relinquish to hospitals any control of medical education. To place students at the service of the hospitals, with definite routine duties in the interests of the hospitals, is to introduce an unsound educational principle. Even though carefully guarded, as it is in the University of Chicago, Doctor Ewing fears that a practical course cannot be so effective as a genuine advanced university course of instruction freed from the necessary restraints and accidental interruptions of hospital routine. Doctor Ewing holds that hospitals are not ideal places for conducting medical education: the discipline of hospital life is far removed from the careful adjustment of means to ends that dominates university education. Only a few hospitals are under

the control of universities. To consign students to some hospital would be to do them more harm than good. To surrender the fifth year to hospitals places undesirable influence in the hands of hospital doctors who cannot qualify for positions on a university faculty. If license to practise depends on a fifth clinical year it will be difficult to induce students to enter laboratory careers. Ewing's chief objection to the fifth clinical year lies in the excessive emphasis it places on clinical training and the relative subordination visited on the fundamental sciences and on general medical knowledge. The scheme, according to him, does not provide for relief for the crowded curriculums of the first three years. Pathologic anatomy, he goes on to say, is nearly a lost art, and although it forms the foundation stone of internal medicine, few internists and fewer surgeons are reasonably familiar with what disease does in the body.

The fifth clinical year makes no provision for substantial courses in chemical pathology, immunology, hygiene, preventive medicine, forensic medicine, or other specialties, which have long been waiting patiently for recognition.

In short, Ewing claims the fifth hospital year is planned to develop practical training at the expense of medical knowledge. The issue, he contends, is clearly before us: shall the medical school undertake to train practitioners thoroughly, or to educate physicians? If the former is the central principle, the

extra hospital year should be insisted upon. The student will thereby learn to meet the exigencies of the sick-room; that he will be able to meet the demands made of the educated physician is unlikely.

This protest of Doctor Ewing shows that much well-grounded difference of opinion may exist concerning the question. But, argued even on general grounds, the decision must surely stand in favor of the fifth year medical interne.

It appears that the subject is one of acute interest in England at the present moment. Because of the shortage of hospital internes caused by the war demands upon their services, fifth year medical students have been acting in that capacity. It is now proposed that their term of hospital service be included as a qualifying portion of the medical curriculum.

The English hospital authorities claim that the proposal is really in accordance with the intention of the British Medical Council when adding a fifth year to the curriculum.

No one will dispute that the fifth year spent in this way, in close association with practical medical and surgical work under hospital oversight, means the best possible utilization of the last twelve months before the final examinations, and the bestowal of a diploma which guarantees the recipient to the public as a responsible and duly qualified practitioner.

This compulsory hospital year, even though spent in an average hospital, will lower our mortality sta-

tistics. The next step will be the improvement and standardization of these hospitals, their affiliation with teaching colleges and universities with skilled medical faculties and well-equipped laboratories. Then we shall produce the trained practitioner who shall also be the educated physician.

HOSPITAL NOTES

THE British Hospital Association has abandoned the idea of holding its annual conference this year in view of the fact that the majority of the hospital superintendents are too much occupied by the demands made by the war to attend the meetings. The Association's Executive Committee will, however, consider and advise on the interests of the hospitals throughout the year.

The often advanced plea that state-supported hospitals will check the flow of private benefactions has been most effectively and ingeniously met by the Cape Colony Government. Hospital boards have been established for each district, and these boards may be subsidized by the Government to the extent of thirty shillings for every pound of voluntary contribution; one pound for every pound in all bequests; and one pound for every pound received as fees from patients. This is a scheme worthy of inception in the most up-to-date American brain.

One proprietary medicine, at least, deserves grateful recognition from the medical profession. Mr. J. C. Eno, proprietor of "Eno's Fruit Salts," who died recently leaving an estate of one million and a half pounds, has bequeathed over one hundred and ten thousand pounds to three well-known London hospitals.

Punch, in a recent issue, quotes gleefully the following passage from a Sydney (Australian) paper: "The *Gunandal* came in on Saturday afternoon with twenty-five baskets of fish, averaging about sixty-five pounds, and only five per cent. were not edible. These were distributed among the hospitals," *Punch* supposes, "on the theory that as the patients are ill they may as well be very ill."

The British Medical Association has appointed a War Emergency Committee whose place is to deal with all matters relating to place and service of the medical profession in connection with the war, and to give organized help to the military authorities. It is taking up such matters as the shortage of hospital internes and staff physicians because of the war; length of medical service at the front and remuneration for the same. It is endeavoring to formulate plans by which further medical help may be secured, both for the War Office and depleted civil hospitals.

The suggestion arises whether a similar committee appointed by the Medical Council or the Academy of Medicine might not render excellent service to the Department of Militia. There are undoubtedly problems to solve and evils to abate in connection with the present Canadian Army Service system. The voice of these bodies should carry weight, and there is much work the organized profession could do, provided official obstacles were put aside.

Rubber goods should be purchased frequently. On account of their perishable nature they tend rather quickly to deteriorate. They should always be of first-class quality. The purchasing agent should know what he is getting.

Rubber goods should not come in contact with oil or grease. Rubber sheets should not be dried on steam radiators; this ruins them.

In an occasional modern hospital a drying closet is found in connection with the utility room. These closets may be built in the wall. The warming coils should be out from the walls and far enough apart to render cleaning easy. Above the coils a spanner ought to be placed. The rubber goods being thrown over it are prevented from coming in contact with the hot coils and being burnt.

Original Contributions

LITTLE JOURNEYS

BY DR. JOHN N. E. BROWN,
Superintendent, Henry Ford Hospital, Detroit.

AN AFTERNOON CALL AT ANN ARBOR.

DR. WARTHIN, Professor of Pathology of the University of Michigan, showed us the dead, black silver-stained spirochete pallida in an ochre colored background of heart muscle from a patient who had died of inherited syphilis without symptoms. Dr. Warthin believes many people have syphilis, and are not aware of the fact. He has been informed that there are over two hundred and fifty medical practitioners in Chicago alone who are innocent sufferers from the disease. He instanced the case of a woman who was confined at the University of Michigan Hospital whose baby gave evidence of syphilis at the autopsy. On the assertion of the obstetrician who thought it quite impossible, as the people were most respectable, judgment was reserved until the next baby came. It, too, was dead, and when autopsied showed unmistakable signs of syphilis. Careful inquiry was made into the family history of each of the patients, and the fact was elicited that the mother's father had been a drunkard, and had been a sufferer from the disease. This daughter was an innocent sufferer, unaware of her infection, and showing no signs of the disease.

Dr. Warthin's observations go to show that most cases of syphilis are acquired by men while under the influence of drink. He cited the case of a prominent man who consulted a physician for a hard chancre. The patient gave a history of having imbibed freely of champagne in a well-known Chicago hotel at which collation sporting women were present. Owing to his intoxication he could not remember—he averred—having had any illicit intercourse with any of them; but undoubtedly,

he had contracted the disease from one of them. Upon learning the fact he shot himself.

Dr. Warthin is strongly opposed to intemperance in alcoholic liquors. He also vigorously objects to the use of the cigarette. Smoking is not allowed around his laboratories and class rooms. A "No Smoking" sign hangs in the main corridor. He is considered a crank on this and certain cognate habits. He told us that some of his students are such slaves to the cigarette that during the afternoon class period—from one to five—these boys become so restless they are obliged to go out of doors and calm themselves—Tolstoi would say "stupify"—with a smoke.

Dr. Warthin finds cigarette smoking closely allied to sexual troubles. Most cigarette fiends, he claims, are masturbators.

Dr. Warthin gives a talk once or twice a year to the male students of the University on sexual matters. His lectures on this subject are listened to with the keenest interest. The writer heard him give one of these addresses to an audience of business and professional men, all of whom were profoundly impressed with his message. The wish was expressed that this lecture of Dr. Warthin might be published. Dr. Warthin, however, like some other great teachers and professors, has not seen fit to publish anything on the matter. If he does not, no doubt, some day some of his pupils will.

Following the Professor's first talk at the University, some twenty years ago, to an audience of several hundred students, for several days he was consulted by scores of them regarding their own sexual troubles, which since the advent of pubescence had been very unduly and unnecessarily worrying them. In Michigan, in those days, the ignorance regarding sex hygiene was appalling, thus rendering many young lives miserable; but conditions since then have infinitely improved. These young men who heard the Professor at that time have gone out from the University, married, raised boys of their own to whom at the proper age they have passed on the wholesome advice given by the Professor. The result is that a large proportion of the boys who listen to Dr. Warthin now, having already been posted on the subject, do not require to consult him on this—to them—a vital subject.

Asked as to his idea on hospital buildings, Dr. Warthin declares himself in favor of the pavilion type—preferably two storey—as is often seen in Germany. This system, according to him, compared with the block, or multi-storied building, permits of a better separation, classification and segregation of patients; it is more hygienic, and the buildings are more easily ventilated. Dr. Warthin finds the interior of the block buildings filled with smells (he instanced a well-known hospital in New York). Infection is more liable to travel from storey to storey in these high buildings. Then, too, from a psychological standpoint, the low building is preferable. As a rule patients prefer being near the earth with its trees, flowers and grass; close to the activities of gardeners, the recreation ground of convalescent patients, the play at tennis, croquet and the like, of doctors and nurses. These absorb the patients' attention, divert their minds from their own troubles and make for cure.

Dr. Warthin admits the cost of administration may be greater in this type of hospital, but this loss is more than compensated for by the pleasure, comfort afforded the patients and their more speedy recovery.

THE CONTAGIOUS DISEASE UNIT.

This little hospital has been erected within the past year and a half. It is the second of its sort in America. The work here is carried on as it is in the Contagious Disease Hospital, Providence, R.I., under Dr. Richardson—on the theory that the spread of contagious disease is due to the carrying of organisms by direct contact rather than through the air. So a rigid technique is carried out by doctors, nurses and attendants. A nurse trained at the Providence institution is in charge of the nursing.

Dr. Belfield, who has had special experience in diseases of children and contagious diseases, both in America and abroad, has charge of the medical treatment. We applied for admission at the first floor entrance, but were directed to the basement entrance just below. We entered a corridor running lengthwise through the centre of the building.

On each side of the corridors are a number of small rooms. One pair is used by visitors. In one of this pair they are given gowns; in the other, they leave their gowns and scrub their hands before leaving. Another pair is devoted to the disinfecting of used mattresses, soiled linen, patients' clothing—apparel. A large steam and formalin disinfector intersecting the intervening walls connects the two rooms and allows for the disinfection of these items in a well-known way. They are disinfecting by formalin, having found that the steam set the stains in the linen. Storage rooms and laboratories are also found in the basement.

The dishes used by the patients are sterilized in an ordinary utensil sterilizer located in the diet kitchen. The refuse having been cleaned off, the trays with their dishes are set one over the other inside the sterilizer. The dishes are boiled for fifteen minutes. The trays are aluminum and seem irremediably discolored by the action of the boiling. We are informed that this was due to the hardness of the water—probably to the presence of lime.

The food leavings are buried by an attendant without having been sterilized.

On the first floor are small wards on either side of the corridor. Here were scarlet fever, chicken pox, mumps, diphtheria; the same nurse going from one case to another irrespective of the disease. Medical asepsis is practised. The chief precaution taken is a careful scrubbing of the hands by doctors and nurses at the lavatories provided in each ward, after contact with every patient; the allotment to each patient of his own utensils, books and playthings, which must not be used by another patient, the sterilization of all infected dishes, utensils, clothing, etc., in short, a carrying out of a technique similar to that carried out in the modern operating room and surgical wards by doctors and nurses.

THE PSYCHOPATHIC UNIT.

This is the pioneer hospital in America for the special study of acute mental diseases in a separate building in connection with a general hospital—apart from asylums or state hospitals.

There are several such institutions now—Pavilion "F" at Albany, under the direction of Dr. Mosher; the Boston Psychopathic under Dr. Southard, and the Phipps Psychiatric, at Johns Hopkins under Dr. Meyer.

Several general hospitals have wards for these psychopathic cases.

Dr. Barrett, the physician in charge, thinks every large general hospital should make provision for taking care of the cases of delirium and other acute disturbed mental conditions developing within its own walls.

He would not make provision for admitting cases of delirium tremens. He is not much in sympathy with this sort of case, seeing the victims have themselves to blame largely. Provision should be made, of course, for the care of hysteria, neurasthenia and other functional nervous diseases.

In a city of 500,000, in connection with a large general hospital a pavilion for fifty patients suffering from acute mental disturbance would be a great boon—especially for people in only moderate circumstances. These people cannot be admitted, as indigent patients are, at Ann Arbor; and, on the other hand cannot pay a rate of \$45.00 per month, which is charged by many sanitariums.

Dr. Barrett showed us a boy aged thirteen, who had been in jail for stealing—a mental defective, the son of a syphilitic father. Another small boy, aged ten, bright mentally, had a knowledge of sexual matters and had abnormally indulged in the same, like an adult habitue. A woman was shown in a delirious condition the result of an acute infection of the kidneys. A young woman in a continuous bath was recovering from a manic attack. The pavilion was full of patients—all quite free from restraint, being treated as other sick people are.

Dr. Barrett holds that there is a great need for social service work in homes whence these patients come, and whither they return after treatment. Some of the patients, like the two boys shown, have no proper place to go. Without a proper environment they will relapse into their former condition.

THE BUILDING OF THE HOSPITAL: ORGANISATION AND METHODS

BY OLIVER H. BARTINE,

Superintendent, The New York Society for the Relief of the
Ruptured and Crippled.

OF the vastness of the annual hospital building programme little is known by even those actively engaged in hospital work and no conception of it is grasped by the general public. When we seriously consider that there is annually spent in this country one hundred and twenty-five millions of dollars for the erection and equipment of new hospital buildings in an endeavor to accommodate approximately six hundred thousand additional patients then the magnitude of the work is forced upon us. We are agreed, I assume, that the demand for hospital treatment is steadily increasing and that it is to the interests of the sick that hospital treatment should become more general.

It is, then, well worth while that we should examine carefully into the general customs connected with the erection of hospital buildings and determine beyond a doubt whether the maximum of efficiency is being reached and that there are no unavoidable wastes, extravagances or short-comings. For just in proportion as wastes, extravagances or short-comings prevail the service which should be obtained from the vast expenditure mentioned and the general usefulness of the hospitals are curtailed.

It is common knowledge that much of the funds given for charitable or beneficent purposes are lost to the beneficiaries through extravagances and inefficiency in management, but it is the feeling of the writer that this applies with less force to the field of the hospital than to any other branch of charitable work. Nevertheless, in so far as such is the case the resultant suffering falls altogether on the sick, those for whom alone the work is carried on. Their good or ill is in the balance. No work of helpfulness more readily commands our sympathies, therefore shall it not also command the maximum of our skill and efficiency.

Naturally the first step looking toward the erection of a hospital building is the appointment of the Building Committee. Herein may lie the success or failure of the entire project, therefore the greatest judgment of the Board of Trustees should be brought to bear upon this most important matter.

The duties of the committee are vastly diversified and call for rare judgment, experience, skill, patience and generosity in the giving of time. These duties include the major control of the financial problems, the selection of the Architect and Consulting Engineer, the selection of the site and the selection of materials for the building (in consultation with the Architect), the letting of the contracts, the procuring of furnishings and supplies and the determining of a thousand and one knotty problems.

For the successful accomplishment of this work an efficient and thorough organization is absolutely essential. Without it the best final results are impossible.

Whether the funds are already available or no may have a direct bearing upon the selection of members of the Building Committee. If the money must be raised one or two members of skill and notable standing in the financial world are most desirable. If the fund is already available the problem becomes one of hospital building construction and equipment only and the appointment of the Committee is to be determined accordingly.

The Building Committee should not be large (a large Committee always proving unwieldy) consisting of three or five members, or possibly four members, preferably all men, members of the Board of Trustees, thoroughly familiar with the field of work and needs of the hospital. It is especially to be desired that the membership of the Building Committee should contain two or more men who have had a broad experience in building operations, and operations of a similar nature. It is also most desirable that one member of the Committee should be a lawyer. If he be experienced in, or familiar with, contract law so much the better.

The Building Committee having been appointed it should promptly organize by the election of a Chairman and Secretary unless the designation of these officers has been made by the

Board of Trustees. It is recommended that a regular date of meeting, either monthly, semi-monthly or weekly, as will best meet the demands of the work, be determined upon. The services of a stenographer, who may also serve as a Clerk to the Committee, will be found most helpful. Detailed minutes of the meeting can then be made and a copy thereof should be sent after each meeting to each member of the Committee for filing and reference.

Inasmuch as this Building Committee, in reality, but represents the Board of Trustees in all its transactions, copies of the minutes of each meeting of the Building Committee should be promptly filed with the Secretary of the Board of Trustees. It is also regarded as essential that at least monthly the meetings of the Building Committee should be followed by a meeting of the full Board of Trustees, at which meeting the general plans and work of the Building Committee and important matters before them could be broadly discussed and helpful advice could be obtained from the other members of the Board of Trustees. Discussion of details is not contemplated in this recommendation.

The erection and equipment of a hospital building involves a vast number of details which no one or two men can be expected to master unassisted. To obtain the best results and the advantages of the greatest possible amount of experience and information the appointment of an Advisory Committee or Staff, as such, is urgently recommended, this Advisory Committee to be so constituted as to include men of experience in so nearly as possible all the details or problems involved.

First and foremost the Superintendent of the hospital should be a member of this Committee.

The Surgeon-in-Chief, President of the Medical Board, Architect, Consulting Engineer, Builder and Operating Engineer should constitute the remaining membership of the Advisory Committee. In the case of certain classes of hospitals, particularly those partaking of the nature of homes, or those especially intended for the service of women, one, or possibly two women, may be included in the membership of this Committee, assuming that there are available women acquainted with the work and needs of the hospital. It cannot

be denied that the Directresses of Nurses, of many hospitals, have rendered most valuable help in the building of the newer hospitals, and they should also be favorably considered for the membership of the Committee.

In mentioning the Superintendent of the hospital it is assumed that the building proposed is being erected for an existing institution. If such is not the case the first step of the Building Committee (or the Board of Trustees) should be the selection of a Superintendent for the new hospital. It is inconceivable that a body of laymen can hope to erect and equip a hospital building without the constant advice, co-operation and co-ordinating work of an efficient Superintendent. No other man can better appreciate the combined administrative, surgical, medical and general service problems, the needs and idiosyncrasies of patients and staff, the correlation of departments, the essentials and the non-essentials incident to the building, and the very many big and little details which will make or mar the future of the building.

The charge that the Superintendent will, if given opportunity, make excessive or extravagant demands for space or equipment is entirely without foundation. The worthy Superintendent quite as well realizes the limitations of available funds as can any member of the Committee, and he is much better able to distinguish between the essential and the non-essential. In any case better the risk of some slight excess of space or equipment than the omission of some essential feature of the hospital or such an unfortunate correlation of units or departments that the entire future usefulness of the hospital is unnecessarily limited.

The Superintendent should consult with the heads of all the departments of the institution, and in the visitation of other nearby hospitals he should invite them to accompany him. It may not be questioned that these associates will absorb many ideas and that they will thus be able to offer many suggestions to the Superintendent, whose duty it is to classify and select those of value, which he should in turn offer to the joint Building and Advisory Committee, including the Architect, Consulting Engineer and Builder.

The Surgeon-in-Chief and the President of the Medical Board, must, of necessity, be most important factors in the work of the Committee. No one connected with the institution will understand as will they the special requirements of their departments and work. This understanding should, however, be supplemented with a thorough and elaborate study of the most modern hospitals, equipments and work as illustrated in the newer hospital plans and construction. They should also advise freely with their associates, whose helpful suggestions should be submitted to the Superintendent and Advisory Committee.

Practical experience has demonstrated that it is not feasible to include a greater proportion of the hospital staff in the membership of the Advisory Committee. Much confusion will be eliminated by requiring the Surgeon-in-Chief and the President of the Medical Board to consult with the other members of the staff, sort out and harmonize the conflicting recommendations and present the worthy suggestions in proper form. Many a hospital has suffered irreparably by an attempt on the part of the Building Committee or Architects to provide for a mass of undigested demands. Naturally the final results have been chaotic and most unsatisfactory.

The Architect, the Consulting Engineer and the Builder should also be active members of this Advisory Committee, because they are vastly important factors in the development of the plans and in the construction and equipment of the building. Too often these parties are deemed as hirelings only, viewed with distrust and kept at arm's length. Many an Architect and Engineer can tell of instances where they have been instructed by the Building Committee to refrain entirely from consultations with the Superintendent of the hospital, its staff, or its Operating Engineer. They are told that, being employed as experts, such association should be unnecessary and will lead to the adoption of extravagant demands. No wonder that many hospitals are built with rooms and equipment that will never be required or are put to later and excessive expense in making changes or adding equipment that should have been originally provided. Cordial co-operation of all those associated

in the work may alone be depended upon to assure a complete **plant and building.**

The Architect is a specialist in esthetics, planning and construction, but most certainly he is not a Doctor, Surgeon, or Hospital Superintendent, nor is he acquainted with their work. Granting that the particular Architect in question has planned one or a dozen hospitals it does not follow that he knows all about the needs of the new hospital. Most assuredly experience in the design of hospital buildings on the part of the selected architect is a desirable asset to the new hospital, but it is not an uncommon thing to find that entirely too much reliance and responsibility has been placed in the Architect, on the theory, that as an expert he knows just what is required and what will best meet the requirements, needing no suggestions or guidance. Such a plan waives aside entirely the immense amount of most valuable information and experience which the Superintendent, Doctors and others associated in the hospital have accumulated through years of work and observations in their own and other hospitals.

Within his particular field, the Consulting Engineer, though he may and should be, an Engineer experienced in hospital work, should not be expected to, or allowed to, carry on his work without intimate contact and association with the other members of the Advisory Committee, and for reasons similar to those stated in the case of the Architect. Especially should the Consulting Engineer and Operating Engineer work in close association and harmony.

The suggestion that the builder should be a member of the Advisory Committee may seem novel but there are very good reasons why this should be so. The builder can give the most reliable information concerning the effect of different sites upon cost of building the hospital, the cost of various materials, the time required for building, the effect of the selection of different materials upon the time element, and other practical questions. Only a careful selection of the builder by the Building Committee, acting with the advice of the Architect, is necessary to secure reliable unprejudiced practical building advice by this means.

By all means should the Hospital's Operating Engineer be a member of this Committee, assuming that the Hospital has such. Too much praise cannot be given to the Operating Engineer of the larger hospitals. His experience in the operation and maintenance of existing equipments and appliances, and in the arrangement of plants will serve as the basis of many suggestions of material help to all concerned.

It is to be most emphatically recommended that when the construction of the building has advanced to the stage that the installation of the mechanical equipment is commenced, the Operating Engineer should be placed upon the work as the Hospital's inspector. In this capacity he will be of inestimable help to the owners, architect, consulting engineer, builder and equipment contractors alike. When the stage is reached that the heating or power plant must be put in operation for drying out the building or other service the Operating Engineer should be placed in charge thereof. The plant at this time should be operated preferably by the owners, but the same purpose can be accomplished by providing in the specifications that the builder shall employ the Hospital's Operating Engineer for this purpose.

Such a plan assures the best of workmanship and materials in every detail of the mechanical equipment, more positively than can be done by the usual architectural and engineering supervision, but more important and valuable still, it enables the engineer to become familiar with every detail of the construction and equipment. When the building is completed and occupied he will, beyond question, be able to conduct and maintain the plant to the best advantage and in a more economical manner.

This service on the part of the operating engineer is not intended to supplant, but rather to supplement the work of the Clerk of the Works or Superintendent of Construction, who is selected by the Architect but employed by the owner at an extra compensation, the duty of the latter being to give his immediate and constant attention to all construction work and the materials and labor employed therein. The operating engineer is rarely capable of supervising the general building construction work, and rarely is the clerk of the works an expert on the installation

of the mechanical equipment. Thus the work of one supplements the work of the other.

In some cases it may seem advisable to treat the architect, consulting engineer, builder and operating engineer as ex-officio members of the advisory committee, but inasmuch as the committee is advisory only this does not seem necessary.

Special meetings of this Advisory Committee will, without doubt, be required from time to time to thresh out multitudinous minor questions, but in general the meetings of this committee should be held jointly with those of the Building Committee, the officers of the latter acting as officers of the joint committee. Manifestly special or separate meetings of the Building Committee will be required, for it is upon the Building Committee, as the direct representatives of the hospital, that falls the responsibility of becoming final arbiter over all questions, save only those requiring the action of the Board of Governors. Weekly meetings of the joint committee are strongly urged, especially in the early stages of the work. Only thus will delays be avoided and will all necessary information be forthcoming at the proper time.

Consultations of the Surgeon-in-Chief and President of the Medical Board with their staffs and with the Superintendent should be full and frank, but without too much self-assertiveness and none of self-prejudice, and this attitude should prevail among all of those associated in the work. All praise to the big, able and generous men who have given much of their time and of themselves to the work of hospital construction; but many hospitals have been erected which have been the subject of serious and just criticism because someone of unusual force, position or apparent authority, whose judgment the other members of the committee fear to question, has been permitted to impress his biased recommendations or views upon the work of the committee. In such cases the hospital and its patients are the chief sufferers, and the staff of the hospital are called upon to offer many apologies.

(To be continued.)

Society Proceedings

AMERICAN HOSPITAL ASSOCIATION

PROPOSED CHANGES IN THE CONSTITUTION AND BY-LAWS.

At the San Francisco meeting the Committee on Constitution and By-laws offered certain amendments. As amended the leading sections read as follows:—

Trustees.

There shall be a Board of five Trustees, which shall have charge of the property and financial affairs of the Association and shall hold title thereto under the name of "Trustees of the American Hospital Association." The President and Treasurer shall constitute two of said Trustees, and one Trustee shall be elected annually, at the convention, to serve for three years, excepting that in 1915 one of said Trustees shall be elected for one year, one for two years, and one for three years. Trustees shall serve until their successors are elected.

The Board of Trustees shall have general control and management of the business of the Association and may appoint and fix the salaries of such officers and agents as it may deem necessary or expedient and establish rules and rates for the use of such facilities as it may in its judgment provide.

ARTICLE VI.

Sections.

In order to facilitate the work of the Association, Sections may be formed and discontinued from time to time, as the Trustees may by vote determine. Such Sections may be geographical, in order that recognized meetings of the Association may be held in various parts in places not easily accessible to all members, or may be departmental in their nature and

devoted to any recognized branch of hospital work. Proceedings at any authorized Section of the Association approved by the Executive Committee may become a part of the proceedings of the Association, and any resolution adopted by a geographical Section shall be recognized as a motion duly made and seconded at any general session of the Association, and a vote of the general Association shall be taken thereon.

ARTICLE VII.

Annual Dues and Charges.

In order to provide funds for the maintenance of the Association, members shall pay annual dues as may be determined by the By-laws; and the Trustees may establish such charges for the use of the facilities of the Association as it may determine.

ARTICLE VIII.

Vacancies.

All vacancies in office and in the Board of Trustees shall be filled by vote of the Executive Committee.

ARTICLE IX.

Section 5.—The Treasurer shall receive all dues and other moneys of the Association, and shall deposit and account for the same, under the direction and control of the Board of Trustees. Whenever so required by the Board of Trustees, he shall give a bond to said Board for the faithful performance of his trust. Such bond shall be in the custody of the President. All disbursements and expenditures shall be made under the direction of the Board of Trustees and subject to its rules and requirements. The Treasurer shall keep proper books of account, and shall present a report of the finances of the Association at the annual convention.

Section 5.—The Committee on Hospital Progress shall observe the development of hospital work in the United States and Canada, and shall submit a report of its observations at the annual convention of the Association.

The Committee on Hospital Progress shall be subdivided as follows:

- (a) A committee of one on hospital construction;
- (b) A committee of one on hospital efficiency, hospital finances, and the economics of administration;
- (c) A committee of one on medical organization and medical education;
- (d) A committee of one on the training of nurses;
- (e) A committee of one on out-patient work;
- (f) A committee of one on hospital accounting.

Section 6.—The Committee on the Development of the Association shall present annually a report on the further development of the Association's work.

No paper shall be published in the minutes or in any magazine or paper as a part of the transactions of this Association except with the consent of the author and with the approval of the Publication Committee. All papers read at any session of the Association or its Sections shall become the property of the Association and, when so requested by the Committee on Publication, the Board of Trustees shall cause the same to be copyrighted in the name of the Trustees; but, unless prohibited by the Committee on Publication, the authors of all papers read at sessions of the Association or its Sections may cause the same to be published, and, if approved by the Committee on Publication, they may be published as a part of the transactions of the Association. No paper or magazine shall be entitled to the exclusive publication of any paper read before the Association or its Sections except by vote of the Trustees.

THE AMERICAN HOSPITAL ASSOCIATION MEETING.

Rabbi Martin A. Meyer delivered the invocation at the opening of the San Francisco meeting. He prayed that the delegates who had assembled in "Our Rainbow City" should be so invigorated in spiritual grace that they might see their brothers and know them and understand them across the differences of opinion; that mind might draw near mind over the chasms which separate them in the pursuit each of his own

ideal; that they might go forth laden with golden sheaves of new ideas and of possibilities for finer and larger achievement.

Dr. John A. Hornsly presented the report of the Committee on Inspection, Classification and Standardization of Hospitals. One great group of hospitals—the Sisters'—had begun to raise their standards. They had formed an association which was meeting now; he hoped this new association ere long would amalgamate with the American Hospital Association. The new movement of the Sisters would extend to Canada and Latin America.

That large class of hospitals under the direct control of municipalities were conscious of their disgraceful condition; and this was the first step toward progress. "The first direction toward improvement in these municipal hospitals must be the assumption on their part that they are not charitable institutions any more than the fire department or the police department are."

The smaller hospitals of the country, unlike the large urban institutions, were often influenced strongly by that member of their staff who had the largest clientele. Such men were losing authority, and group work was beginning to manifest itself. Hospitals were more and more catering to the large middle class of people. Hitherto stress had been laid on attention to the rich and to the poor—the man of moderate means having been overlooked.

The Mayor's secretary then welcomed the delegates. San Francisco, he said, was one of the cleanest hospitals in the world. Dr. Blue had made it one of the loveliest. These two factors did much toward keeping patients out of hospitals. San Francisco had a system of emergency hospitals. The city owned and operated them all. The visitors would be welcomed to visit them.

Dr. James L. Whitney read a paper entitled "List and Nomenclature of Diseases, and System of Filing in Use at the California Hospital." Those of our readers who wish to procure this list may do so by writing to Doctor Whitney, care of the University Hospital, for it.

Doctor Kilgore, who assisted in the compilation of the

report, said it was most desirable that there should be a uniformity in hospital nomenclature. Elasticity and ability to change according to later knowledge of the etiology of a disease was a very important thing. This new system fully covered this point.

PROGRESS IN NURSING.

Miss Harriet Leek, Principal of Nurses, Grace Hospital, Detroit, read a paper on this subject. Miss Leek said in part:

"But what are we preparing our nurses for? This might well be classified by what the three great organizations of nursing, with which we hold a joint meeting, represent—The American Nurses' Association, which is the alumni of our schools; the Educational League of Nursing, which is the institutional worker; and the National Public Health Nursing organization, including the school nurse, infant welfare nurse, tuberculosis nurse, social service nurse, etc. Now the alumni of our schools are three-fourths private duty nurses. This ratio may be a little high, since the public health nursing field has grown so rapidly, but the training applies to both. How are we preparing them for their field of work? The answer comes by looking at our graduate-special nurses in our hospitals. Are we satisfied with our own product? If we find it so hard to deal with these nurses in the hospital, how are they getting along in the home? How economical are they with supplies? How well do they adapt themselves to the patient, family, servants, etc.? Why do so many patients able to pay for a graduate nurse not want one? The trouble lies chiefly in the fact that the average graduate does not know how to make a home; she lacks the home spirit; she does not know enough of nursing ethics: she has not studied the law of human kindness, of unselfishness, of bearing and forbearing. How much of this spirit is generated in the training schools? In other words, how much real motherly, homey interest do we take in our nurses? Getting the work done thoroughly and the class work attended to is our chief concern. The *spirit* is *first*, and if that is taken care of the rest follows without any trouble. We get the 'cart before the horse.' I fear that is what is the matter

with our private duty nurses. Not long ago a prominent doctor said to me, 'Deliver me from a nurse whose god is her salary, who can see dirt outside the sick-room and not lift her hand to obliterate it, who would not stoop from her professional work to lift a crying child or relieve a tired mother.' The majority of our pupils come from well-regulated Christian homes. They are literally thrown into the cold routine stream of hospital atmosphere. How can you expect them to swim safely ashore amid the temptations without careful watching of all sides of their make-up, the mental, moral and spiritual? Now, I do not mean that we should preach religion, but I do mean that we should generate an influence of justice, of right living and high thinking, of interest, sympathy, unselfishness, of love in its true sense—is there any greater essential in the building up of home life? The school and hospital should be literally saturated with this home spirit."

Miss Anne A. Williamson, R.N., Superintendent of Nurses in the California Hospital, Los Angeles, California, prepared a paper on "The Eight-Hour Law; Its Present and Its Future," which was read by Mrs. Mitchell, of the Pacific Hospital, Los Angeles. Mrs. Mitchell said that all superintendents of training schools were enthusiastic over the eight-hour schedule, but the majority of them were burdened with the forty-eight hour law. To those who wanted advice from the speaker's experience, she would say: Get your eight-hour schedule adopted before there is a forty-eight hour law.

Dr. Cleveland Shutt, Commissioner of Hospitals, St. Louis, said there seemed to be an effort to reduce the profession of nursing to a trade. Why, he had not been able to decide. He presumed the medical, preaching and legal professions would become reduced to trades sooner or later, unless they solidly objected. The doctor, in the midst of an appendix operation, at the end of his eight-hour shift would quit and hand the completion of the operation over to another! It was as logical for a doctor to quit as for a nurse. Unless the medical profession protected themselves from these people who were conducting this unionistic propaganda, the people would protect themselves from the profession. There was a tendency already on

the part of certain surgeons to train their own nurses—they are fearful of calling on a nurses' directory. He had known surgeons to refuse certain nurses offered to them because such nurses "had had a training—not a teaching" (sic). Why should we have eight or any number of hours for any profession? Why should we not have that which was reasonable and just to the individual—no more and no less?

Should a nurse not be trained at the bedside, as doctors are? Many persons who are able to employ nurses do not, for the simple reason that the graduate nurse is not acceptable in the home. She has had a lot of teaching—can give the etiology, causes, symptoms and treatment of typhoid fever, possibly better than the doctor she is nursing for, but may not recognize a typhoid perforation when it occurs. The patients are going to demand nurses who are not union.

Miss Jamme: I should like to say in regard to the statement that we are endeavoring to put the nursing profession in the rank of a trade, that the Legislature of California, when this question was brought up for discussion during the long hours of one day and way into the night, had this matter brought before the legislators. It was said that they were endeavoring to put the nurses in a class with the canners. The answer was, "You are already in the class of the canners; you are working your nurses as the canners work their women, for gain for your hospitals." It was on that basis only that the eight-hour law was passed in California.

(To be continued.)

Selected Article

HOSPITALS AT THE FRONT

BY LIEUT.-COL. MCPHERSON, TORONTO, OF NO. 2
FIELD AMBULANCE.

HOW WOUNDED ARE MOVED AND CARED FOR.

PARTICULARS of the wonderful system which has been worked out in connection with the care of the wounded in the hospitals at the front are contained in the following letter received from Lieut.-Col. D. W. McPherson, C.A.M.C., of No. 2 Field Ambulance.

"When a brigade goes into the trenches," says the Colonel, "the field ambulance sends forward a section of usually two officers, forty men, three horse ambulances, two motor ambulances, and six wheel stretchers to establish an advanced dressing station. This station is placed as close to the trenches as possible, and is self-contained as far as its equipment is concerned. Back about two miles we have the main dressing station, which will accommodate about 150 patients.

"When a man is wounded he is attended by whoever is near the line. On the inside of the skirt of every soldier's coat is a first aid pack containing gauze, cotton, adhesive plaster and bandage, oil protective and safety pin. The stretcher bearers convey him back to the regimental aid post. Here the doctor of the regiment has his supplies, usually in a dugout or cellar. The regimental officer now examines the dressing. A tag is placed on the man with his name, number, regiment, religion, nature of wound and treatment. Usually at night time, or whenever possible, the ambulances from the advanced dressing station, with an officer and bearers, come up as close as possible to these regimental aid posts and convey the wounded back. There are usually four to six of these regimental aid posts to clear from.

"At the advance dressing station a medical officer again examines the dressing and condition of each man and enters on his tag any treatment he receives and redresses the wounds. The officer enters in the admission and discharge book full particulars of each case as on the tag. From here the wounded are sent to the main dressing station. Here again the wounds are redressed, and twice a day the motor ambulance convoy of the Red Cross comes up from the casualty clearing station, usually about six to twelve miles back from us, and clears all the wounded out of our dressing station.

"From these dressing stations and the casualty clearing stations the wounded are sent to stationary and general hospitals, and by transport ambulance ships to base hospitals in England.

"When we are out with the brigade at the trenches we are looking after the sick of the Canadian Division who will be better in, say, four days, and any who are going to be sick longer are sent to the field ambulance, which is running a convalescent station. Here they only keep those who will be ready for duty in ten days, more serious cases being sent back daily to the casualty clearing station.

"The hardest man or officer, I should say, is Captain W. H. Fox, the Quartermaster. He must see that the company has sufficient food and supplies at all times, and is responsible for the transportation of it all when we move, as well as all the equipment of the unit."

Lieut.-Col. Herbert A. Bruce attached to Hospital at Le Treport

LIEUT.-COL. HERBERT A. BRUCE, A.M.C., of Toronto, who was ordered to France the latter part of August, is now attached to No. 2 Canadian Hospital at Le Treport. It is understood that Lieut.-Col. Bruce will go later to Etaples. While in England he was at the Duchess of Connaught's Hospital at Cliveden and at Shorncliffe.

Book Reviews

Chemistry and Chemical Urinalysis for Nurses. By HAROLD L. AMOSS, S.B., M.D. Philadelphia: Lea & Febiger.

This book comes out from the hands of Lea & Febiger, Philadelphia and New York, in a neat shape, with good clear type, 268 pages in extent, quite handy for a pupil's textbook. As to the subject matter, it must constantly be borne in mind by specialists in any science, art, or craft, when directing their instruction, that every other specialist under the sun thinks also that nurses must have an intelligent, if epitomized, knowledge of his specialty too. Yet the bulk of the nurses' work is to be done with her hands. If only somebody with an Edisonian mind could put on a moving film record the representation of hands, clever demonstrating hands, showing on a magnified scale in a still picture the important details of position, name, shape, etc., in all of a nurse's manual labors. It is very necessary to have reference books for the training school library such as these written by doctors of science, and all physicians, supervisors or dietitians teaching in a hospital should be thoroughly familiar with them.

Doctor Amoss wisely begins with a preface addressed to instructors, whom he thus acknowledges to be his agents. The subject is developed clearly and slowly from the simple phenomena of slaking lime, or oxidation of silver, to the point where the nurse may understand the digestive processes of the body, the values of foods, the principles of caloric feeding, etc.

An interesting chapter relates to urines, their analysis, the intake affecting them, their amount, color and abnormal contents. However, the fact still remains that the duty of the nurse is rather that of obtaining a specimen at the right time and in a suitable container than finding out what it contains. A well-trained nurse working for a very exclusive physician among his fashionable clientèle has nothing more to do than to fit a little enamel bottle in a fine leather case, call a special

messenger and send the specimen of her patient to just such a laboratory as probably is conducted by the assistants of a clever pathologist like the author himself. And if she were in a country district, the physician would not ask for nearly so many specimens, but would examine them himself, we hope, even cursorily, after his twenty-mile drive. There is a great danger of giving nurses the impression that they are to do things with a pen, or pencil, a test tube, or a telephone, the patient being eliminated. The chief difference between the nurse turned out twenty-five years ago and now is that the callous, gay, chemist-clerk-mathematician-surgical assistant nurse of to-day does not love to rub backs, turn mattresses, cheer up neurasthenics, or feed ghastly marasmus babies, none of which requires a knowledge of chemistry. The whole country will perish on this rock, wanting to get away from work with the hands. Everyone wishes to be an organizer instead of a doer. Who will then soon be doing our nursing, Japs, Indians, Chinese, or colored girls? All books written for nurses should be submitted to the Nurses' Association for standardization.

Care of the Baby: How to Keep Your Baby Well. By J. P. CROZER GRIFFITH, M.D., University of Pennsylvania. Sixth edition. Cloth, \$1.50 net. Philadelphia and London: W. B. Saunders Company.

This book, first copyrighted in 1895, has now seen twenty years of use, and by growing in favor required revision and recopyrighting several times. No subject strikes home so deeply, and no subject is so diversified, as the care of infants. Besides, the last twenty years have seen such a marked change in the civilized life of this New World that everything affecting the conception, gestation, birth and development of child life requires more study and nursing than in any other civilized race in the whole history of the race.

The book takes up the hygiene of pregnancy, the confinement, the care of the infant as to bath, clothing, airing, feeding,

sleep, and the early control of his habits and thought. The essentials in good nursing are fully discussed, the author wisely saying that the woman who conducts an obstetrical case successfully must have great tact with relatives and servants. However, it is rather quaint to hear her called a "monthly nurse," in sharp distinction to what a graduate of a first-class general hospital, with special training in a great maternity hospital, would slangily call herself, "an obstet. nurse," and in no word or line of this chapter is any knowledge of the author betrayed of the skill, reliability and loveliness of some of these *young* women, who go again and again to the same families, and are sometimes even entrusted with the entire care of children and household, while the parents are in Europe. One can be a good "obstet. nurse" and wear smart clothes, and be young at the same time.

Then, too, some of the pictures used to illustrate the book represent articles of clothing and furnishings for the nursery entirely too fussy and frilly to be comfortable or sanitary for the baby.

One excellent point, in passing, is the mention of the leaden nipple shield for cracked nipples, which would cause any mother great torture were it not for this simple but wonderful cure.

There is a very useful category of all the diseases to which a child falls an easy prey, each handled very clearly, with good illustrations.

In an appendix follows a list of useful recipes for whey, junket, etc., which can never be too frequently read.

Further on comes a very clear, lucid chapter on modification of milk. However, pediatricians now have departed from the "top milk" method herein so minutely described, and are using "whole milk" entirely, on the basis of 3iss (ounces one and a half) for every pound of baby as a total of milk for the twenty-four hours, this being diluted as required.

On the whole, the book is accurate, useful and voluminous, and would prove a valuable help for any mother or nurse.

A. A. S.

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A Letter

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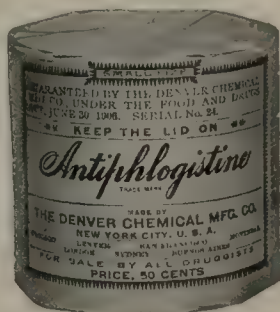
A New Hospital Mattress

THE Adjusto Mattress, of which a cut appears on page ix of this issue, is proving more popular every day with hospitals and other institutions where large numbers of patients or inmates have to be taken care of, for the reason that it can be so readily adjusted to the size of the spring, both in width and length, and thus does away with that untidy appearance in the make-up of the bed, due to a "spreading" mattress, which is so objectionable to doctors, patients and nurses alike. It is the only adjustable mattress on the market and, besides this advantageous feature, has wearing, resilient, sanitary and artistic qualities unsurpassed by any other mattress manufactured. The felt and the ticking are of the very best quality obtainable, and the workmanship the best efforts of skilled labor. In short it is "the perfect mattress made perfect."

Adjusto was invented and put on the market by the Ontario Spring Bed and Mattress Co., Ltd., London, Ontario, pioneers in the craft of mattress making in this province. The Company also manufactures institution beds and springs, and attachments for raising or lowering patients in bed; also sanitary pillows, bolsters, pads and especially designed clinical beds when required.

For full information write the head office of the Company, 90 York Street, London, Ontario.

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from Infancy to Old Age—from New
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ever there is *profound*, or *superficial*
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Directions:—Always
heat in the original con-
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Needless exposure to the
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is indicated as an active, aggressive and most valiant
Antagonist of the Inflammatory Process.

A recent case of extreme inflammation, resulting from accidental application (with corrosion and intense pain) of Hydrofluoric Acid, during dental practise:—"In desperation, after failure to relieve with other means, Antiphlogistine promptly controlled inflammation—the wound *healing without disfiguration.*"

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IN view of the dissatisfaction experienced by many hospitals with rubber sheeting, surgeons will be glad to know that recently there has been placed upon the Canadian market a sheeting that has all the good points of the more old-fashioned rubber material, but without its faults. The fabric referred to is known as "Stork" Sheeting, which has for years enjoyed a splendid patronage from the older hospitals, particularly in Massachusetts. It gives the greatest of satisfaction on account of its wearing qualities, is not easily torn, but can be used with even greater freedom in the operating theatre than the rubber sheeting can, standing all the tests that are necessary.

"Stork" Sheeting is exceedingly pliable and has none of the coldness of the rubber goods. Apart from its suitability for the operating theatre, it is ideal for use in the nursery and as a protective to the beds of senile patients. This sheeting can be obtained from the Canadian agents, Flett-Lowndes Co., Toronto.

The Chase Hospital Doll

By referring to another page of this issue of THE HOSPITAL WORLD, hospital superintendents will notice the announcement regarding the Chase Hospital Doll. As the manufacturer very truly states, "it is to the hospital training school for nurses what the laboratory is to the medical student." In fact, such a figure is indispensable in the training of a nurse, and its merits should be looked into at once by institutions that so far have not invested.

A New Size Package of Platt's Chlorides

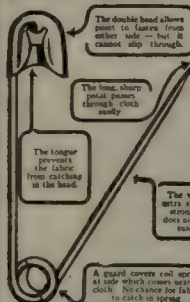
AN important move has been made by Henry B. Platt, manufacturer of Platt's Chlorides, the Odorless Disinfectant, by placing upon the market a small size package to retail for twenty-five cents, of this old reliable and well-known disinfectant that has been in general use for over thirty-four years by people of refinement in their homes, and also in hospitals and other institutions.

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It is with perfect frankness, and with the utmost sincerity that, without pretending to cure every case of Epilepsy, we recommend to the medical profession **GÉLINEAU'S DRAGÉES**, which have given to their inventor the most complete satisfaction for 30 years and have earned for him the gratitude of numerous sufferers. **GÉLINEAU'S DRAGÉES** offer to the practitioner a superior weapon, giving him the possibility of a triumph in ordinary cases, and in all cases the certainty of at least a marked improvement.

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THE PHYSICIAN WILL FIND IN "EAGLE BRAND" THE MEANS OF LESSENING THE DEATH RATE IN OUTBREAKS OF INFANTILE DISEASES. This result is due to the modern and sanitary methods of production and manufacture strictly enforced by the Borden Company.

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accident and sickness, when you can be amply protected?

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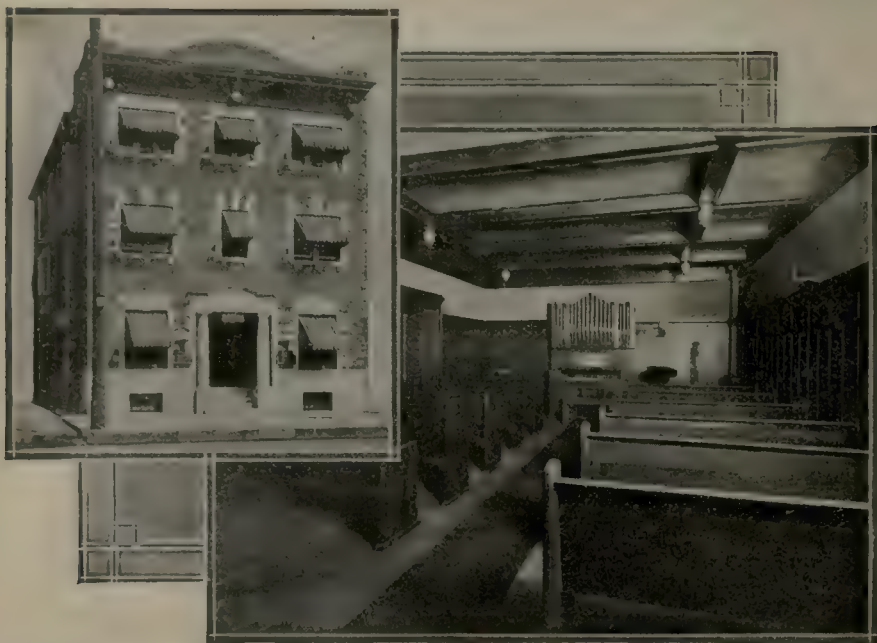
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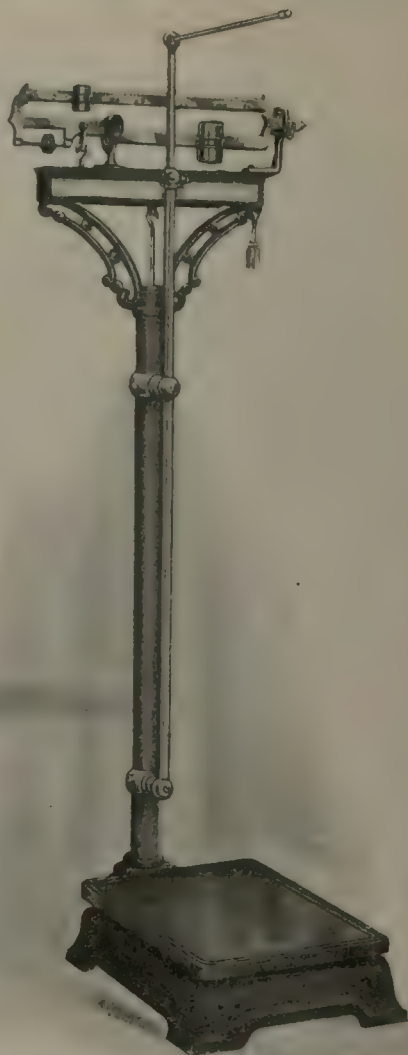
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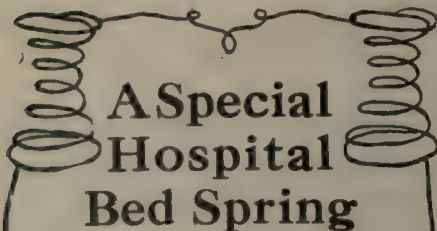
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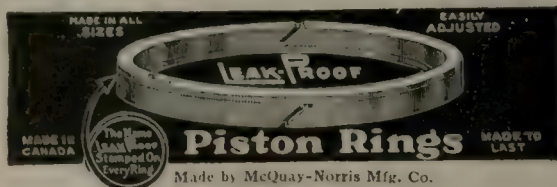
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Vol. VIII (XIX) Toronto, November, 1915

No. 5

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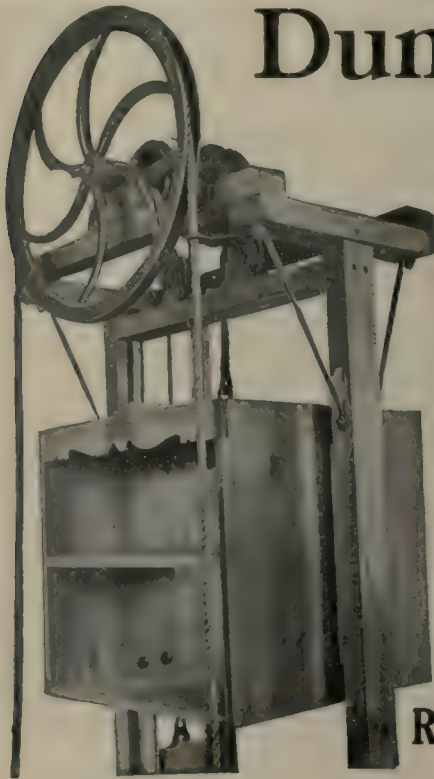
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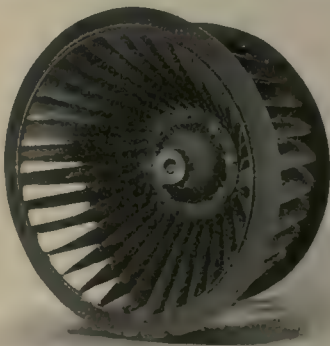
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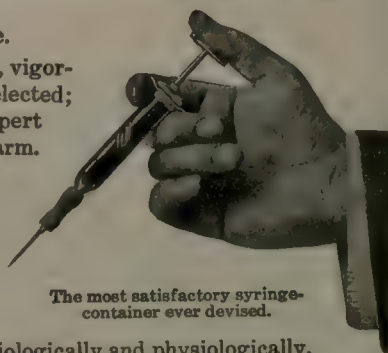
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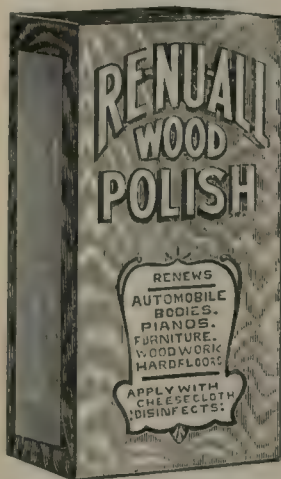
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Editorials

HOSPITAL ESTHETICS

To what extent the esthetic element should enter
into hospital architecture and equipment is a ques-
tion admitting of more than one viewpoint.

The demand for complete asepsis has grown yearly more imperative as the medical laboratories have sent out their results of bacteriological research. The modern hospital in response has done wonderful things in germless construction. Flooring, doors, windows, walls, smooth surfaces, glass, white enamel—everything is made to show the slightest trace of soil or dust. Shining, bare, hard spotlessness has come to be the modern hospital ward idea.

Now arises certain questioners concerning the desirability of this ideal. They wonder whether possibly the aseptic pendulum has not swung too far, and whether the esthetic element should be altogether ignored.

Grosvenor Atterbury, of New York, writes ably on this subject in the *Journal* of the American Medical Association of recent date. He takes as his text the motto of the great Virchow Hospital, "In treating the patient do not forget the man," and with light but graphic touch depicts the patient's viewpoint of this shining spotlessness.

"The poorer he is the more startling the contrast between the impersonal institution—high ceilinged, vast, mechanical, unresponsive—and the tiny room he has left, dirty and ugly if you please, but thoroughly vitalized through personal use."

The writer contends that, as efficiency and asepsis are the first factors demanded in a hospital ward, the architect has little opportunity to introduce much beauty; and he wonders whether there is

not a larger efficiency to be considered, and whether the price of perfect asepticism is not too high: "For in spite of all its modern improvements, when you send even the intelligent patient to the hospital you have put him in the incipient stages of mental goose flesh, whereas the prime requisite of the hospital is, after all is said and done, that it should inspire confidence and hope."

We may take issue with the latter statement, since first and always the prime requisite of a hospital is that it should cure its patients. But that a cheerful mental attitude is a strong contributing factor, and that a more or less esthetic environment tends to produce this is well allowed.

Mr. Atterbury justifies his plea from an economic standpoint by amusing mathematical logic, taking Johns Hopkins Hospital expense report as a basis. He finds that the shortening of the average time of bed occupancy by a single day per patient would mean the saving of a comfortable sum of \$500,000 a year. That the introduction of a measure of esthetic grace in the wards to the banishing of the bareness, the glistening hardness, and the consequent tendency to "goose flesh" would conduce to this happy result, he feels assured. Consequently he wants some small part of that \$500,000 to provide "open fire-places, window curtains and pink bed jackets."

That hospital serves best which cures its patients most quickly and completely; and whatever contributes to this end is undoubtedly a factor, larger or

smaller, in the total efficiency of such a service. That perfect aseptic conditions should rank first is obvious. But that a sense of cheer and comfort, which is, perhaps, a human reflex of artistic, colorful and sensuous surroundings, should be used as a contributory health restoring factor is equally evident. The architect's protest is against the tendency to exalt the first to the exclusion of the second.

Institutions have each a character that, consciously or unconsciously, impresses itself upon those who come within its influence. The appeal of the hospital to the sick should be one of combined skill, purity, comfort, and as far as possible beauty; and the latter elements have been too much ignored.

The art of healing is becoming recognized as a marvellously complex thing—the patient, as a marvellously complex organism. Mechanism and mechanical equipment, however perfect, cannot reach the hidden springs.

Medical research has not yet laid emphasis on the esthetic as a curative agent. Perhaps in our haste to meet the many demands science has made we have stripped our hospitals overbare. There is a tendency to reaction, as evidenced in the architect's plea.

SOIL SICKNESS

THAT bodies become diseased is an old and sadly familiar fact, accepted by all. But that soil may become diseased, and in this condition react upon those who dwell upon it—this is surely largely a new conception to the majority.

Beyond a general recognition that gravel soil and slope ensuring good drainage make desirable building sites, the soil as a factor in human health has not been largely considered except from an agricultural standpoint. Recent investigations, however, by agricultural chemists, aimed to discover the causes of soil deterioration, indicate that soil may become "diseased" in a very real and human sense, and that these diseases may be treated, once they are correctly diagnosed.

A close and most interesting analogy appears to exist between sick soil and sick people. Soil needs cultivation as human beings need exercise and air. But this is not always sufficient. Certain chemical substances develop in soils which render them infertile, and these must be extracted or rendered innocuous—in other words, healthy conditions must be established before fertility is ensured. That there are laws of hygiene and sanitation quite as essential to the control of the soil's health as to that of mankind is asserted by these skilled investigators, who have come to the interesting conclusion that the soil is not dead and inert, but a living organism, with

vital functions and with likenesses to the human body.

To what extent the recognition of this similarity will revolutionize soil treatment is yet to be seen. But the close analogy of health conditions between soil and the humans who dwell upon it leads by instant association to the larger question, To what degree does a sick soil affect human health?

That drainage of subsoil has markedly lowered mortality in certain diseases, such as consumption, is a matter of repeated record. That the stench of the battlefields is giving anxious thought and effort to those entrusted with the health of our armies is also well known. But it almost appears that beyond these there may be even a finer interplay of health conditions, a closer and more vital association between the two organisms, to a degree that deterioration of the soil in any particular must imply a corresponding deterioration in the humans who dwell upon it. Does dust call to dust in some hitherto unrecognized subtle way?

Sluggish water, undrained low-lying ground, fungi, mold, rankness—all of these are known health menaces. To these may be added many other evils of soil impurity. The direct influence of soil conditions upon human health must henceforth be given a deeper and larger interpretation because of the wonderful possibilities revealed by these recent researches.

Original Contributions

LITTLE JOURNEYS

BY DR. JOHN N. E. BROWN,

Superintendent, Henry Ford Hospital, Detroit.

THE MASSACHUSETTS GENERAL HOSPITAL.

THERE are two services in medicine and two services in surgery in this hospital. The superintendent and the two chiefs in medicine form an executive committee on the medical side. A similar committee acts for the surgical side. There is a general medical advisory committee consisting of the superintendent and the two medical chiefs, two surgical chiefs and one representative from each of the smaller surgical divisions. Each chief has his associates and assistants. None of the members of the visiting medical staff is paid, and therefore does not give his full time to the hospital.

The services are practically continuous, barring the holiday time, when the work of the chief is taken on by an associate. There is a resident attached to each of the services in medicine and surgery. These officers receive a salary of \$500 per year. They have general supervision of the work of the internes. An interne serves in one department only, as a rule. There is no bar placed, however, upon his going over to another service after he has completed the service he is on. The residents are generally chosen from the interne staff, but not necessarily.

Many of the members of the medical and surgical staff are teachers in the Harvard Medical School. A great deal of post-graduate work is done in this hospital, and the courses given are attended by practitioners within striking distance of Boston.

Dr. Howland says that they send about three thousand circular letters of invitation to medical men in Massachusetts and surrounding states advertising these courses.

THE NEW NURSES' HOME ADDITION.

An additional nurses' home to accommodate about one hundred nurses was finished a year ago. Entering the basement we were shown a room about thirty feet square with a linoleum floor. This room is provided with a cupboard, tables, and chairs, and is used as an off-hour dining-room. Adjoining this is a small kitchen which is supplied with utensils. Here the nurses may prepare meals for themselves at off times—supplying their own food.

We were shown another room in which the nurses who wish may make their own clothing and do other sewing.

In another part of the basement nearby is a petty laundry. It contained several stationary wash tubs, ironing boards and a drying closet. From the wall at a convenient point projects a rod upon which a last is placed, upon which the nurses place their shoes for polishing.

One end of the basement is taken up by a nurses' class and demonstration room. The chief furniture of this room comprises a desk, and numerous large chairs upon the side of which is an arm upon which the nurses place their books while they take notes. On a frame ranged along the wall hang artificial limbs with rough sanded surfaces. On these the nurses are taught practical bandaging. A bandage roller, transformed from an old sewing machine, is installed in another part of the room, upon which the nurses roll new bandages and rewind those which have been used for demonstration purposes.

Wax models and anatomical specimens were also noted standing on the table under glass covers. Near the front of the room we noted a good-sized sink at which the students and instructors may wash their hands after handling the anatomical specimens.

A public pay telephone station is available for the use of the nurses.

The nurses' bedrooms are about eleven feet by eight feet and eleven feet in height. The bed is three feet wide. A small dresser with several drawers is provided, one of which has a cylinder lock, in which valuables are kept. The chairs—a straight back and a rocker are made of Austrian bent wood. A

cupboard along the wall about thirty-two inches wide and nineteen inches deep contain the nurse's text-books. A door at the bottom of the cupboard opens out horizontally, forming a desk. In the closet of the room were noticed a towel rack and a shoe bag. On the outside of the door of the room in which nurses were sleeping was a printed sign, "Night Nurse." A pay telephone is located at the end of the corridor.

A tastily furnished bedroom with a bathroom attached is reserved for guests.

The hall floors are of terrazzo with a terrazzo wainscoting. The thresholds are of Tennessee marble and the runways are of battleship linoleum. The room floors are of cement covered with linoleum. The doors are of birch-stain finish.

A large mirror is placed opposite the elevator landings in order that the nurses may observe whether their hair or dresses are awry.

Toilets and baths are supplied to the nurses in a ratio of one to five. The w.c.'s are separate from the baths.

One article of equipment noted was a dust bag, similar to a soiled linen bag. The bag is of dark stuff, is mounted on a wheeled holder and is trundled about by the maid from place to place as she does the sweeping.

The superintendent of nurses has an attractive suite of rooms, and on each floor supervisory nurses have a sitting-room which may be used by two or more of them. At each end of the building on the ground floor is a gong which is used to wake the nurses in the morning.

The home is provided with a roof garden. The intention is to have it covered with canvas eventually.

A practical desk lamp was shown us in the Home. It was shaded and provided with a screw joint for adjustment of the light and the shade. The lamp was covered with aluminum paint.

The Massachusetts General Hospital is one of the pioneers in occupations for the handicapped. We visited the workroom, where some two or three ex-patients were at work making cement flower bowls and garden seats. This department is directly under the supervision of the chief administrative offices.

A worker is in charge who was trained under Dr. Herbert Hall at Marblehead.

THE OUT-PATIENT DEPARTMENT.

In the Out-Patient Department the differentiating medical officer has a refusal book in which he writes the reason why he refuses admittance to any particular case.

They will not dispense medicines on prescriptions over one month old. All patients who are late in arriving at the dispensary have the time of their arrival put down on their slip by the janitor, which information can be noted by the admitting doctor when the patient comes to his desk.

All patients over sixteen years of age pay twenty-five cents for their cards; patients under the age of sixteen years pay ten cents for their cards. The cards are made of pasteboard four inches by two inches.

Patients losing their cards may secure new ones from the admitting doctor for the sum of ten cents.

The room in which the out-patient histories are kept is about twenty-eight feet in length and about eighteen feet in width.

Patients and students may purchase a glass of milk and two biscuits for five cents.

Women pathologists do the routine examination of urine in the out-patient department. A recovery room is provided in the surgical division of this department.

Patients do not carry their own history cards from the office to the examining doctor. They are sent upstairs by the means of a lift.

The writer is indebted to Dr. Howland, the earnest assistant administrator, for most of the above information, imparted in a pleasant two-hour ramble through a portion of this historic institution.

THE BUILDING OF THE HOSPITAL: ORGANIZATION AND METHODS

BY OLIVER H. BARTINE,

Superintendent, The New York Society for the Relief of the
Ruptured and Crippled.

(Continued from October issue.)

Plans of the proposed hospital, from the earliest stage of sketches to final construction plans, should at all times be kept on file at the office of the Superintendent, where all members of the hospital staff may consult them. It should be made known that they were there for this purpose and that suggestions relating thereto on the part of the staff should be made to the Surgeon-in-Chief, President of the Medical Board, or Superintendent, i.e., to the head of the department in which originated the suggestion.

No more important duties fall within the province of the Building Committee than the selection of the architect, consulting engineer and builder. The committee should make the most careful studies and investigations and select those best qualified by experience to carry out the work. This selection should be made without the influence of friendship, mere acquaintance, or prejudice, such as all too often prove to be the determining factors.

Frequently the selection of the architect and consulting engineer is determined upon the basis of the fee charged, selecting those who ask a fee less than the usual rate or that charged by the best architects and engineers. Could anything be more absurd? As reasonably might we select our doctor or lawyer upon the same basis. It is recognized that there is ample justification for the demand of a higher fee by one doctor than another or by one lawyer than another. Ability is just as variable and just as desirable, nay essential, in the architect and engineer as in the doctor and lawyer.

The architect should be selected because of his ability, character, experience and organization, his willingness to co-operate with the Building and Advisory Committees, his demonstrated capacity for planning the building conveniently, efficiently and

economically. The architect who is extravagant in his ideas and in his selection of materials should be avoided as should the architect who is lacking in experience or organization, because he will probably involve the hospital in unexpected expense before the building is built and equipped.

The committee should investigate the previous work of the architect considered and study its character, completeness and relative cost.

The selection of an architect for a hospital by means of an architectural competition is the least desirable method that can be suggested. In such a case, however, the competition should be conducted according to the rules of the American Institute of Architects and should be confined to architects of sufficient experience in hospital construction.

In general, the remarks made concerning the selection and employment of the architect apply with equal force to the matter of the selection of the consulting engineer. To many, however, the necessity of the employment of a consulting engineer is less appreciated, but it is none the less real. The architect deals with the plan and scope of the building and with all of its esthetic requirements, while the engineer deals with the mechanical or engineering equipment. The first provides the building and the second that which makes it habitable, workable, convenient and useful. The one is an architectural problem and the other is an engineering problem. And the two lines of work involve essentially different temperaments, education, training and experience. No one man can accomplish both successfully. Very few architects, probably not more than a dozen in the country, employ mechanical or sanitary engineers in their offices.

The consulting engineer should be well informed and thoroughly experienced in hospital work and have an organization capable of successfully carrying on the work.

Just a word regarding the relations and fees of the architect and engineer. The schedule of charges of the American Institute of Architects provides for a payment to the architect of six per cent. on the cost of the entire work and an additional payment to cover the cost of the consulting engineer's fees, where required, but it does not state the amount of extra pay-

ment or where required. The usual engineer's fee is the same as the architect's, but it is based upon the cost of the mechanical equipment only.

The question will arise whether the Architect is to be paid his fee on the entire cost of the building, including the equipment upon which the engineer is paid his fee. The architect must so arrange his plans as to provide spaces as required by the engineer for coal, boilers, auxiliary apparatus, ventilating and heating apparatus, ducts, plumbing fixtures and piping, electric plant and equipment, refrigeration apparatus, elevators, vacuum cleaning plant, laundry and kitchen equipment, etc. It is also principally the duty of the architect to see that the building and its equipment properly come together during construction and upon the completion of the building. To a large extent also the architect acts as executive in administering the work in such matters as rendering certificates of payments to all contractors, keeping the records of all contracts, and in similar details. All of this involves much time and expense to the architect. At the same time the architect is not called upon for this professional knowledge and experience and he is relieved of the expense of making the plans and specifications for the mechanical equipment and the supervision of its installation. A recognition of these facts has led to the frequent and successful adoption of a plan whereby the architect is paid six per cent. on the cost of the building without equipment and three per cent. extra on the cost of the mechanical equipment, while the engineer is paid six per cent. upon the cost of the mechanical equipment only. While this involves the payment of an extra three per cent. on the cost of the mechanical equipment, it involves but a very small percentage of the total cost of the hospital, usually about one-half of one per cent., and the great advantages obtained by the employment of the consulting engineer certainly warrant this expenditure. In the first cost of installation, quality considered, and in the reduced annual cost of maintenance and operation this small extra expenditure will be saved over and over.

To the engineer should be entrusted the design and supervision of the entire mechanical equipment, including the power plant, heating and ventilating plant, lighting and other elec-

trical equipment, plumbing, elevators, refrigeration, vacuum cleaning, incinerators, and laundry and kitchen equipment. These are all parts of the mechanical equipment.

The plan of utilizing manufacturers' or contractors' plans and specifications for heating and ventilating, plumbing, lighting fixtures, elevators, laundry and kitchen equipment, as is frequently done by hospitals and architects, cannot be too strongly condemned. Many hospitals have, because of so doing, paid vastly too much for these equipments, and they have had foisted upon them apparatus which signally failed to meet the needs of the hospital and other apparatus for which no possible use could be found. These are engineering problems and should be left to the consulting engineer, and they should be entirely free from the prejudicial influence of contractors or manufacturers, who manifestly have selfish or personal ends to serve.

The selection of the builder is a most important matter. A poor builder means a poor hospital, and the best of committees or architects cannot alter this fact. Delays, annoyances and poor work will prevail throughout. Experience in hospital construction on the part of the builder is desirable.

The selection of the builder by means of competitive bidding is not the only possible method, nor is it the best. In such a case the service of a builder is not available in the early stages when such services will prove very valuable. The "cost plus percentage" method of employing the builder has many advantages which should be thoroughly investigated by the Building Committee. Under this plan the builder, who should be selected at the outset, guarantees that the cost of the hospital of a certain size shall not exceed a certain sum, and he is paid a certain percentage, usually five to seven per cent., upon the actual cost. This plan eliminates vexatious problems, such as extras, and makes the builder, from the first, a confidential associate of the committee rather than an antagonist or mere hireling.

Allied with the problem of the selection of the builder is the problem of selecting sub-contractors and equipment contractors. It is believed that such work as the heating and ventilating, plumbing and electrical work can best be let as separate contracts. This subject of contracts, however, is too large to be treated in this paper.

With an organization such as is above outlined cordially working in harmony the success of the venture is assured and the ways are prepared for real progress.

Immediately upon the formation of the joint committee a careful and expansive survey should be undertaken of the field and work of the new hospital and of the exact nature of the service to be demanded of the building and of its needs in detail. This should include a study of the class or classes of patients to be served, the probable number of private rooms or ward patients for which provision must be made, and of the requirements of the surgical, administrative, mechanical and other departments. Every need should be considered.

In the meantime visitations to other hospitals of a similar nature should be made extensively, and the needs, method, construction and equipment of the most modern hospital work and construction should be studied intensively so as to obtain the most practical and ideal results. In these visits and studies all members of the Building and Advisory Committees should take part. Co-operation in this work will surely bring wonderful results.

In these visits materials, equipment and methods should be the chief points of study. With these investigations as a basis the committee will be in a splendid position to consider methods, and especially materials, for the new building. Concerning the latter emphasis should be laid upon the fact that the use of cheap materials involves always high maintenance costs and often irremediable dissatisfaction. Extreme care should be exercised that only those materials shall be used which will exactly fulfill all requirements and prove durable. This should apply to every detail of the building and its equipment. Better sacrifice in amount than in quality.

At the beginning of the work of the committee a programme or plan of steps in the work should be outlined. First in this plan would be the study or survey of the work and needs of a hospital, followed by the visits to other hospitals, the selection of a site (unless same be already available), the lay-out of the plot, including the arrangement of the building or buildings, the orientation of the building, study of water supply, sewage disposal, gas and electric service and telephone service, founda-

tion problems, structural, exterior and interior materials, and so on into the many details involved.

A thorough study of all of these problems lays the best possible ground work for the preparation of the plans. The architect should then be called upon to prepare tentative sketches of the building, embracing the features determined upon by the Building Committee after conference with the Advisory Committee. These sketches should be presented to the joint committee as a basis for discussion. Multiple copies should be available, so that each member of the committee may have a separate copy. The Surgeon-in-Chief, the President of the Medical Board, and the Superintendent should take their copies of the sketches to their associates in the work of the hospital and confer with them. Thus many helpful suggestions may be secured. Such suggestions should, however, be considered with the Superintendent before being presented to the committee.

After a reasonable time the committee should again meet and a general discussion should be had. Such modifications in the sketches as may be agreed upon by the joint committee and approved by the Building Committee should be made by the architect. Revised sketches should then be submitted to the joint committee. In this work the consulting engineer should co-operate with the architect. When the plans have been put into the form best meeting the views of the joint committee and are approved by the Building Committee, the latter should authorize the architect and engineer to prepare working drawings for the construction of the hospital in accordance with the approved sketches. During the progress of this work many problems will arise which should be brought to the attention of the joint committee. Minor modifications of the plans may be deemed advisable from time to time, but if the preliminary work has been well done these changes will be slight.

When the architect's and engineer's working drawings are presented to the committee they should be carefully scrutinized to see that the previously agreed upon details have been embodied and have made a successful arrangement. If so these plans should be accepted and adopted, and after this date only the most urgent reason should lead to a departure from these

plans. The architect and engineer will then prepare specifications, and all is ready for actual construction to begin.

In the above little has been said concerning matters financial. It has been assumed that funds are available. If not, a separate problem is placed before the Building Committee. The subject is one for special treatment.

If funds are available it is perfectly possible to determine just how large a building may be built with the funds available. If funds must be raised the size of the building should be determined from which the cost may be obtained.

The cost of hospital buildings per cubic foot of space should be the governing factor in determining the size and character of the building to be built.

By a proper selection of the particular hospitals which in character and materials used nearest correspond with the proposed hospital and the use of careful judgment, a correct unit cost may be determined and thus the size of the building which can be built for the funds at hand, or the cost of a building of a certain size, may be determined. This data should be checked with the builder's estimates.

If a plan such as has been outlined above were applied to state, municipal and other public buildings it would not so often become necessary to rearrange or reconstruct new buildings in order that they may efficiently serve the purpose intended. Many hospital buildings when completed are not adapted for the purposes for which they were designed. In many cases the money is not available for alterations, and it becomes necessary to carry on the work under disadvantages to the patients, medical staff and others interested in the work. Large sums are annually expended in alterations in new buildings, and much of this money could be saved by careful study and planning.

The committee should endeavor to build the best possible building within their means and to obtain the best materials and equipment at a minimum of cost. A very grave mistake is made by many boards in attempting to build a million dollar building for seven hundred and fifty thousand dollars, or at that ratio. A one hundred per cent. perfect building cannot be built for a seventy-five per cent. appropriation. An attempt to do either thing but involves difficulty for the committee,

architect, engineer and builder, as well as for the hospital staff, who, with the patients, suffer the most in the end. Rather than make the serious mistake of attempting either of the above schemes it is urged that a building be undertaken which can be built within the available funds, using the best of materials and equipment, and that it be so done that it can be later added to as funds become available.

The increased interest of recent years manifested in this work by members of the Hospital Alliance, hospital trustees, by many architects, engineers, builders and hospital journals, has been a great factor in the advancement of hospital construction and equipment.

Society Proceedings

AMERICAN HOSPITAL ASSOCIATION

(Continued from October issue.)

Miss Pickard, of Pasadena: I want to say that the second paper is not really typical of the conditions, as I believe, of all hospitals in California. I want to state, too, that the hours of teaching, as one speaker has referred to, are not included in the hours on duty. Nurses can be taken to the bedside any time after the seven hours are up and taught; in fact, that is encouraged. We teach very much more than we ever have before, and the health of the nurses, I believe, has never been better than it is at the present time in most of the schools I have been able to see. I am not in sympathy with the eight-hour law, with the forty-eight hours a week, but I am greatly in sympathy with the better conditions that have come to light since this law has gone into effect.

Mrs. Mitchell, of Los Angeles: I would like, Mr. Chairman, to say a word. I want to say that while the forty-eight hour law came upon us as a thunderbolt—no one thought it would ever pass—and while we have struggled under it, it is

working out for the better. I do not think it has the best influence always upon the pupil nurse. I think that it has been just as hard for the pupil-nurse to adjust herself to the forty-eight hour law as it has for the people who are in charge of her. They have been at a loss to tell where they were. It has given a little more of an unfinished condition in their work which, no doubt, we will be able to overcome later; I hope so, but I feel that while the forty-eight hour law is very hard upon us, and it is an example for the rest of you to fight against and get your eight-hour schedule well under way, I do think that it has bettered things and that our training schools as a class are in better condition than they were when we started.

Miss Mary M. Goodrich, of New York: I am rather at a disadvantage because I only heard the last few lines of the paper on the eight-hour law. I feel very strongly in the matter. It seems to me, if I may put it briefly, that there was never a heavier indictment brought against our schools for nurses than that it was possible to include the pupil nurses in the eight-hour labor law. Had our schools been schools of nurses, this could not have happened. I cannot recall that in any case the pupils in any schools have been so worked that by any possible interpretation of the labor law they could come under it. So it seems to me that while we regret that they had to be included in the labor law, we cannot regret that a system which required the pupil-nurse to give such hours to actual physical labor, to hard work, should be interfered with in some way, and we feel that while the eight-hour law, coming as it has, must have worked a great hardship and must have made a very difficult proposition out here in California, it devolves upon the hospitals and training schools all over the United States to try to readjust their school system and prevent their nurses being classed in that way.

Now I cannot leave that last statement without just one other word, that I feel it is no humiliation to be placed under labor, inasmuch as I feel that every nurse—and I do not want this to sound sentimental, it is simply the way that I think we should look at it—so great a respect have I for the honest laborer that I feel the nurse who honestly gives of her service as a servant of the state is a laborer in the very highest sense

of the word. I do not know that I believe in the trades union, but if "trades unions" mean that such hours are arranged for the workers that they can broaden their minds and bring to their classes a fresher spirit, a greater enthusiasm, it is trades unions that we want. If it means that we are simply commercially controlled, that we desire only to have the shortest possible hours of labor with the greatest possible returns, then I do not believe in trades unions.

It does seem to me that if one considers what the man gives who is preparing for the medical profession, as compared with what the nurse gets, we must consider that while it is true that he pays for his professional education and that he gives four or five years, it is also true, as this very law in California has proved, that the nurse has been an actual economic asset to such an extent in the institution that it has been said that a number of hospitals in California would have to close; because, while the nurse may be receiving a small amount, sufficient to cover her uniform, and may be receiving her maintenance, is it not true that she is in actual service, giving more than she receives, otherwise it would not place these hospitals in such jeopardy? I believe that the time may come when nurses may pay for their education, when perhaps it is proper and right that they should pay for the theory which is part of their education and of which the hospital should be relieved; we are all struggling for such schools of nurses, but we also realize that it cannot come without an endowment. Medical schools are endowed; I do not think I have heard of a successful one without an endowment. Whether the state will see its way clear to this, we do not know; I think it should justly, feeling that the nurse is very definitely a servant of the state, a person whose services are very much required in building up the health of the state, which is its greatest asset. If the state realizes and appreciates what the value of the well-trained nurse is to it, it will, then, I think, assume some of the responsibility of the training of these women and see to it that a sound theoretical preparation, as well as the practical preparation, which has been our greatest asset, be furnished. We all realize that without our bedside instruction a nurse would be but a poor and failing person, but we also realize that she must have the theory to make that pos-

sible intelligently. It is simply in keeping with the entire vocational problem of the day. Everyone will agree that a person to be a success in any vocation must have a very highly intensified preparation in the particular subject in which he is going to work, and must also have a broad, general knowledge to make that training of the greatest value to the community.

Miss Charlotte Aikens, Editor of the *Trained Nurse*, was called upon to report for the committee appointed to consider the grading and classification of nurses. She said the committee had asked the National League for Education of Nurses to give its opinion on the tentative report presented last year. The president of that organization had promised to bring the matter to the League's attention. Miss Aikens had not been able to get in touch with the proper authorities of the American Medical Association, but hoped to at the present meeting of that body in San Francisco. Miss Aikens, in concluding, said:

"I think that we often forget that this Association must represent not alone the large general hospital, but must also represent the special hospital; it includes in its membership the struggling hospitals which may be out on the outposts, as well as the large hospitals in the medical centres. And any committee which undertakes this question must have a broad view of the whole field, and of the conditions which prevail not only in the United States, but in Canada. We have endeavored, I think, to do two things. I think we have had one clear-cut objective point before us in all this work, and there is one thing that we would like particularly to see as the result of this work. That is that in all classes of institutions, whether they are large or small, the nursing should be under the direction of duly qualified nurses. We even look further than that. We hope to some time see the nursing in the field outside, which is now in such a chaotic condition, done under the direction of the graduate nurse. We hope for those two things; we are working for them. We are trying to raise the standards of the care of the sick in all classes of institutions from the bottom up, as well as out in the field. This Association represents a tremendous money expenditure; it has been entrusted with tremendous responsibilities, and the public has a right to look to it to provide the kind of nurses needed to care for all classes of the sick,

at least, to help to provide. And we very much hope that as an outcome of this conference which is to be held we shall gain a clearer idea of just the kind of nurses the physician wants. Doctor Shutt, I think, has mildly suggested that we are not turning out the kind of nurses the physician wants. I am sure it is our wish to do so. We are working to improve the care of the sick in all classes of institutions, whether they are small or great, whether special or general, and that is the object we have in view in asking for this conference. We expect to continue our efforts towards this conference and hope to present a fuller report next year."

Miss C. A. Aikens, Editor of the *Trained Nurse*, presented the interim report of the committee on the grading and classification of nurses. Copies of the report were distributed; it will come up for discussion at the Philadelphia meeting next year.

The following resolutions by Dr. Hornsby were then adopted. (Included are the mover's comments.)

1. That the President be and hereby is requested to appoint a local committee on arrangements for the meeting of the Annual Convention; and,

Further Resolved, That the next President be requested to appoint a committee on transportation arrangements for the next Convention and that the duties of such committee shall include arrangements for any special trains, excursions, etc., and that the work of said committee shall be under the direction of the President and Executive Committee.

We have had a good deal of trouble during the last two or three years, this year included, getting our Convention arrangements made, and it seems to me that a responsible committee should be charged with that duty.

2. Resolved, That the next President and Executive Committee shall have the power of this Convention delegated to them to change the time and place of the next annual meeting, if at any time during the year it shall appear to them that arrangements in the city chosen by this Convention as the next meeting place are not satisfactory or that the time chosen is not propitious for the meeting.

We might have had our Convention chosen at a town where, like San Francisco many years ago, some event might occur

which would absolutely prevent its being held; it might come at a time when the meeting would be out of the question because of the many attractions there. It seems to me that the Executive Committee should have some time to decide during the year on some things that might come up. It might become known to us that the city chosen could not or did not wish to take care of the Association. I think that power ought to be left in the hands of the Association to provide against any untoward accidents.

3. Resolved, That it is the desire of this Convention that there be created for the next annual Convention an adequate and comprehensive commercial exhibit; that the next President is hereby requested to appoint a proper committee to get up such exhibit; and that a sum, not to exceed \$500.00, be and is hereby appropriated for the use of such committee, to be expended under the direction of the President and the Executive Committee.

That resolution has a long point ahead of it. We ought to have a lot of money. We ought to have a permanent secretary, and in order to do that we must have money. I propose that we shall begin by creating a commercial exhibit that shall be most instructive and a most attractive feature of the Convention and that out of that commercial exhibit we shall make enough money to do some of the things that this Association ought to have been doing a long time ago.

4. Resolved, That the next President and Executive Committee be informed that it is the sense of this Convention that the American Hospital Association should have a paid permanent Secretary; and that the next President and Executive Committee seek ways and means to provide for such Secretary.

Now, these resolutions do not touch the Constitution at all, and it seems to me that we can pass them if we want to without a lot of delay and that we can do some things during the year that will not take us further than we would care to go. I would not care to go into the Constitution with some of these things, but we can pass them as the sense of this meeting and then if there is to-morrow an Executive Board created by the adoption of the changes in the Constitution these things can go to that Board, but I would like the Convention to pass on some of these things that seem very, very material to our welfare.

Dr. John W. Draper, of New York City, read a paper prepared by himself and his assistant, Dr. George D. Stewart, on "A New Era in Teaching and in Hospital Management."

The University of the City of New York has recently given the privilege to the department of surgery to grant the degrees of Doctor of Philosophy and Master of Science. Dr. Stewart thinks other universities will grant similar honors in the near future. This will mean that there will be a higher grade of students to work in the wards, because a part of the advanced credit work will be done in the wards.

The European war, which authorities anticipate will not soon cease, has thrown and will throw the burden of teaching medicine upon America.

The United States is infested with two types of men—the recent graduate who imagines he knows the indications for and can perform any operation; and the amateur physician-surgeon, who, as Munroe said, "Operates for the excitement of the fee."

To remedy this condition of affairs every practitioner should have at least one year of hospital training. With the rapid increase of hospitals this will be possible.

Research is essential to the development of surgeons and of the cultivation of their individuality. The surgeon should have received a thorough and broad instruction; and he should have had a privileged hospital residence and post-graduate study. There should be established some standard of attainment which must be reached by men to gain their general recognition by the profession.

The essayists think a preliminary compulsory academic year following high school course prior to a four years' course, plus the compulsory hospital year, makes a better course than to compel a man to possess an academic degree before entering medicine.

There is a danger in over-training, with consequent loss of initiative and efficiency. Too often men grow stale. Too long a period as an assistant spoils many a man. This is seen in Europe. Rare is the American surgeon who would choose to be operated on in Europe in preference to America. The technique is poorer; and the men have spent too long in the dead house.

To-day calls for corporate medicine, so well illustrated in certain Western communities. Team work in medicine is the desideratum. If to-day calls for corporate medicine, communal medicine may be the method to-morrow.

Laboratory methods in teaching surgery to undergraduates was introduced and stabilized by the far-sighted Halstead. We can depend on the laboratory to break the evil and antiquated conception of a distinction between medicine and surgery, and to give a new and healthy viewpoint.

Formerly universities considered surgery as a technical art. That day is past. Now this subject will be placed on the same basis as physiology, and degrees granted in science and philosophy for the study of surgical problems.

The modern department of surgery should have three divisions: Applied or therapeutic surgery, diagnostic or deductive surgery and experimental or inductive surgery. Principles, rather than technique, should be taught in the laboratories.

Hospital services should be mixed, but the mixture must be constant, not alternating. Medical and surgical wards should be much more closely identified. The so-called medical man will visit the surgical wards, and the surgeon the medical wards. If one considers the frequency with which the operating doctor visits and inspects the cavities of his patients, there to see the living pathology rather than terminal dead house conditions, he rather than the physician might justly be called the "internist."

THE OPERATING ROOM.

Dr. Herbert O. Collins, Superintendent of the City Hospitals, Minneapolis, read a paper thus entitled. The essayist defined an operating room to be: A workshop, in which everything is designed for the assistance of the workers, and where there is nothing that may be considered as superfluous or unnecessary, or planned for show; a scientific laboratory where many questions in anatomy and pathology or in surgical technique arise and are solved; a training school for young surgeons and nurses. Floors may be of tile, walls of hard plaster, well enamelled. Plumbing fixtures and furniture should be simple in construction, durable and no more than are necessary.

Skylights should be avoided. The *personnel* should consist of the operator, his assistant, an anesthetist, a sterile nurse and an unsterile nurse. The nurse in charge of the operating room should be responsible for the preparation of the patient for operation; and, if possible, should have supervision of the subsequent dressings. We owe it to our internes to give them some active work in the operating rooms. With a few weeks' experience the average hospital interne will be perfectly competent to fill the position of first assistant. As to anesthetics, except for minor operations, the interne must give way to the official anesthetist.

Mr. Howell Wright, Superintendent of Cleveland City Hospital, Cleveland, read a paper on "Efficiency and Progress in Hospitals." The essayist took issue with a statement of Dr. Hurd that the municipal hospital should be reorganized whenever it is necessary, to afford proper care for all cases of chronic diseases among dependent patients, and for cases which come under the police powers of the city—cases in which the right to restrain them in quarantine or to isolate them or to enforce hygienic requirements must be exercised.

Mr. Wright believes that the interests of humanity demand a far greater sphere of activity for the modern municipal hospital. The municipal hospital is an institution of organized society provided by a city to care for the sick; a medical means to a social end—the public welfare. The city hospital must give a community scientific care for its sick, educate physicians, nurses and orderlies; and, above all, give a watchfulness over public health. Considering all the opportunities, there is not nearly enough to offer in the way of efficiency and progress in municipally-owned and operated hospitals, in proportion to what believers in popular government have a right to, and do actually, expect from them.

Boston City Hospital and the St. Paul City and County Hospital were two examples of long-continued efficiency. The former hospital had taken a questionable step when the Mayor of that city had appointed as Superintendent an untrained hospital administrator. Mr. Henry C. Wright's report on Bellevue and allied hospitals showed indications of efficiency and

progress. The City Hospital, St. Louis, has become affiliated with Washington University and with St. Louis University; the house staff has become reorganized; a three-year course has been established for nurses; and definite plans are being made to increase the laboratory facilities.

In Cleveland the first unit of a \$3,000,000 hospital is under construction. An affiliation has been effected with the Western Reserve University. Division chiefs are on duty the entire year. The house staff has been reorganized, and residents appointed; the school for nurses has been reorganized. A full high-school education or its equivalent is required of pupil nurses; and an eight-hour day established. Plans are under way for the nurses to receive instruction in nursing private cases. Great emphasis is being placed on the Social Service Department. The convalescent patient may be sent out to a farm, where patients can be cared for at 50 cents per day.

No municipal hospital is on a high plane of efficiency unless it includes provision for the scientific supervision of convalescence.

One great cause of the serious failures in municipal ownership is the failure of the city hall and the medical society or medical school to get together. Too often incompetent architects have been selected. It was a mistaken notion to suppose that the cheapest and best way for a city to take care of its sick poor was to pay somebody else to do it.

But the greatest hindrance and danger to efficiency and progress in municipal hospitals is found in the method or plan of administrative control. Too often city hospitals were a part of the changing city administration. It is a tremendous cost in time and money to have frequent changes of hospital officers. The immediate hope of the municipal hospital lies in placing the active administrative control in the hands of a non-partisan board of trustees, properly connected with the administrative and legislative branches of the municipal government, so as to prevent it from becoming isolated from other public welfare activities.

When the average Mayor and his cabinet are, by reason of education, training and experience, public welfare workers, with

high business-like ideals for the development of the city's welfare activities, and are continually elected by the people on this basis, then non-partisan boards of trustees will not be necessary, because every change in a city administration will not necessarily result in a change of competent hospital officials and essential hospital policies.

War Hospitals

ONTARIO BASE HOSPITAL

On a breezy upland overlooking miles of the rich Kent countryside lies the site whereon Ontario's new English hospital is about to rear its wards. Situate some fifteen miles south of the mighty city of London, this quiet little town of Orpington is all but a suburb. From its pleasant villas and neat cottages a contingent of workers leaves every day to follow diverse vocations in London.

The "Boundary Estate," of whose one hundred and sixty acres the province has purchased thirty, was lately the property of a wealthy old gentleman, at whose death the place was offered for sale. No ancient park surrounds a mossy manor house. Thirty-eight years ago, when he "first took service with the squire," declared the old gardener, the whole tract was just a grassy meadow.

This veteran retainer's life has been devoted ever since to transforming the grounds into their present state of perfection. He posed for a picture surrounded by his handiwork—lawns of velvet turf, which would make Parks Commissioner Chambers verdant with envy, flower beds rich with foliage and blossom, gravelled walks and well-trimmed trees and shrubbery. As in most English estates, a high wall of mellowed red brick gives seclusion from the outside world.

"But they tells me I am to go on with Col. Pyne," remarked the grey-haired gardener with relief, as he presented a formid-

able brass ear-trumpet to the writer. "It would 'a gone hard with me to leave the old place now."

Colonel the Hon. Dr. Pyne and his staff, including Major Clarkson James, will occupy the house. To the right in the picture stretches an expanse of flower beds and orchard to the foot of a hill. A broad plateau of meadow opens out at the top of this slope. Here the hospital will be located. The high embankment of the South Eastern and Chatham Railway cuts through the property about a quarter of a mile from the proposed hospital—one of the busiest railways in England to-day, the line from London to Dover, over which thousands of soldiers and vast quantities of stores travel weekly. But the quiet-running British trains will not disturb the patients—no more than the supposedly loud cackling of the famous fowls bred hereabouts and named after the town.

A cawing multitude of crows and a huge flock of starlings rose from the meadows—the site of the hospital to be—when the visitor strolled over to peek down a queer fenced-in-hole in the ground called the Dane pit. Excavated in the chalky soil, forgotten centuries ago, the pit reveals five little lateral tunnels. Tradition says that in the olden time this weird well and its adjoining caverns were used as a hiding place from enemies.

Re-tiled new villas may be seen here and there over the wide sweep of landscape viewed from the hospital site. Little brown squares among the green, hedge-rowed pastures, speak of plentiful harvests in the diminutive but productive fields, from the dotted stooks of one of which issued a puff of smoke and a report as the visitor gazed. A farmhand, gun in hand, was scaring the birds from the "corn."

The hospital, which will be of similar construction to the other Canadian ones at Cliveden and Shorncliffe, will have accommodation for over one thousand patients. This section of the country, by reason of its altitude and porous, chalky soil, is considered very healthy. The location is most convenient and accessible by frequent trains as well as by excellent motor roads. Though the plans are under way, no building preparations were being made when your correspondent visited the place. Work will begin, however, at an early date. Ex.

Book Reviews

Playing the Lone Game Consumption. By THOMAS CRAWFORD GALBREATH. "Journal of the Outdoor Life" Publishing Co., 289 Fourth Avenue, New York City.

This book is piquant, pathetic, useful, in its histories and advice to fellow sufferers, from one who fell victim to this awful disease. He is now an arrested case. But he was unfortunate at first in receiving bad instructions from one physician, whose errors, happily, were offset by the wise counsel of another doctor, whom the author glorifies. He lays stress on the theory accepted everywhere now, that a man must be cured in the climate where he intends to spend his days afterwards at work. He also emphatically denounces the well-meant but badly-planned kindnesses of municipalities that pay a boy's way to Denver, but leave him in that germ-ridden city, where prices are so high, to become more ill and penniless, hopeless and dying. One point also is well taken in regard to students' dormitories. At the colleges, one student may follow in the same rooms a fellow who has had t. b., without any precautions as to cleanliness, sunshine, soap and water. To this he attributes, in part, his own illness.

The book breathes joy and hope to the t. bs., and it shows how to construct a cabin that will have firm flooring, sun, air without billowy breezes, and warmth, as well as companionship, with perfect safety for the companion. There are many pointed "what not to dos."

Altogether it is an excellent tonic to anyone to read this little work of only seventy-five pages.

In regard to the cabins, I saw a very fine arrangement at Weston, Ont. The hospital there employs superannuated street cars, lined up in rows, end to the long board-walk to the main pavilion. Any little town or village could procure these for any sort of disease requiring isolation, couldn't it?

A. A. S.

Colon Hygiene, comprising New and Important Facts Concerning the Physiology of the Colon and an Account of Practical and Successful Methods of Combating Intestinal Inactivity and Toxemia. By J. H. KELLOGG, M.D., LL.D., Battle Creek, Michigan. Good Health Publishing Co., 1915.

This is a new book by the indefatigable superintendent of Battle Creek Sanitarium. In the preface he says:—

“Forty years’ experience and observation in dealing with chronic invalids, and careful study of the results of the modern X-ray investigations of the colon, together with observations made at the operating table in many hundreds of cases, has convinced the writer,—

“That constipation, with its consequences, is the result of unnatural habits in relation to diet and colon hygiene which prevail among civilized people.

“That some mechanical obstruction is the cause—a fold, a kink, a redundancy, a contraction.

“That, by observing certain rules and the faithful and continuous use of safe and simple means, the colon may be made to perform its functions in a regular and efficient manner without the use of irritating laxative drugs.”

The anatomy and physiology of the colon and ileocecal valve are discussed. A study is made of bowel action and bowel contents; the influences which excite or lessen intestinal movements; toxemias; forms of constipation; diet in constipation; baths and exercises in constipation. Various electrical methods of treatment are discussed, and also special treatments of the different types of constipation. A chapter is devoted to the treatment of disorders which result from constipation—colitis, proclitis, hepatic and splenic enlargement, fecal tumors, valvulus, gastric disorders, arterio-sclerosis, premature senility, headache, insomnia, etc., etc.

The book finishes up with the “Colon Code” in an interesting chapter on “Bowel Habits of Civilized Man,” the pith of which shows that nations whose peoples are vegetarians do not suffer from constipation and its consequences as do the meat-eating races.

Neurasthenia or Nervous Exhaustion, with Chapters on Christian Science and Hypnotism, "Habits" and "the Blues."

By J. H. KELLOGG, M.D., LL.D., Superintendent Battle Creek Sanitarium, Good Health Publishing Co., 1915.

Facing the title page of this second edition of Dr. Kellogg's book we read the following, which gives an idea of the contents:—

DON'T WORRY—CHEER UP.

"Worry wears worse than work. Worry destroys, work produces. Worry wastes energy, work utilizes it. Worry subtracts, work multiplies. Worry dwarfs, depresses, confuses, kills.

"Worry stops digestion, paralyzes the bowels, slows the heart. Worry anticipates failure and creates disaster.

"Worry is a mind malady—a mental unsoundness. Anxiety in the face of grave danger is natural and unavoidable.

"Worry about petty troubles, or even big ones, is useless and may become calamitous. Worry is often a habit and may be cured by an effort of the will.

"Ofttimes worry is due to loss of sleep, tea or coffee, indigestion or constipation. Take a neutral bath at bedtime, eat biologically, abjure tea and coffee, move the bowels three times a day, and

CHEER UP."

The book is written in an easy, popular style, and is full of information for sufferers from the "American Disease." Some good hints are given on the question of rest, exercise, diet and bathing. There are a goodly number of practical illustrations.

John Shaw Billings: A Memoir. By FIELDING H. GARRISON, M.D. Illustrated. G. P. Putnam's Sons: New York and London. The Knickerbocker Press. 1915. Price \$2.50.

Dr. Garrison holds that Dr. Billings though eminent in the military world and well-known as the director and up-builder of the New York Public Library will be best remembered as the most eminent bibliographer in the history of medicine, the planner of some of the finest hospitals and laboratories in the world, notably Johns Hopkins. Equally eminent as a sanitarian and statistician, war surgeon, medical historian and civil administrator.

Billings was born in the Hoosier State, which is now becoming so well known through the work of some of its later born literary sons—Riley, Tarkington, Nicholson, Ade. Billings was born on a farm; worked for his father in a country store; read omnivorously; began of his own initiative Latin and Greek; worked his way through college—like many Edinburgh boys in the old days—cooking his own meals, and otherwise climbing the steep and thorny way to fame. Following his struggles to acquire a general education, we read of his experiences at Miami Medical College; of his association with Drake, Blackman, Mendenhall, Wright and other pioneers in medicine of the Middle West; of his early hospital experiences in Cincinnati and his association as a teacher in the Medical College of Ohio. Then come his rich experiences as a medical officer during the Civil War; his letters and notes of which form a distinct contribution to the literature of the great struggle.

A chapter of great interest is that devoted to the founding of the Johns Hopkins Hospital. In addition to the planning of this great group of buildings, it fell to Dr. Billings to choose the men who have made the institution so famous. Dr. Henry M. Hurd was chosen superintendent in 1889. The calling of Prof. Welch followed. Osler writes of his call:—

“In the spring of 1881 he (Billings) came to my rooms in Philadelphia Without sitting down, he asked me abruptly, ‘Will you take charge of the Medical Department of the Johns Hopkins’ Hospital?’ Without a moment’s hesitation I answered, ‘yes.’ ‘See Welch about the details; we are

to open very soon. I am very busy to-day. Good morning.' And he was off; having been in my room not more than a couple of minutes."

Dr. Billings' *Description of the Johns Hopkins' Hospital*, a quarto of 116 pages, illustrated with 56 plates, was published in 1890, and became a kind of text-book on the subject of hospital construction and ventilation. The writer ran across a copy of this while prowling through an old bookshop on Entaw Street, Baltimore, last fall.

A number of eminent men were asked to submit plans and ideas on hospital construction to the Trustee Board—a sort of competition. Billings' contribution was selected as the best, and he was chosen in an advisory capacity to the Board. The volume containing all these contributions is out of print; and you are lucky if you can find one in any old bookstore in Baltimore or anywhere else. The writer failed to find one in Baltimore; but he hopes to look again.

Lay hospital workers, as well as members of the medical profession, will do well to have Billings' biography in their libraries.

State Registration for Nurses. By LOUIS CROFT BOYD, R.N., Graduate of the Training School for Nurses of the City and County Hospital, Denver, Colorado. Second edition, enlarged. Octavo volume of 149 pages. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$1.25 net. Sole Canadian Agency, The J. F. Hartz Co., Ltd., Toronto.

This work represents a vast amount of labor and patient research, since it collects the full text of all the laws governing registration of nurses, in all the states of the Union, as well as the terms on which a nurse's license may be revoked, the requirements for application for license, and every other conceivable feature relating to the legal status of a nurse. It presents, therefore, in accurate concise form, every fact that a nursing organization needs to look up, in taking the steps preceding registration. It should be in the reference library of every nurse training school, and will be of great value to every super-

intendent engaging nurses for her staff, or to any registrar to whom strangers apply for the privilege of getting calls for private duty.

A Text Book for First Year Pupil Nurses. By CHARLOTTE A. AIKENS, Detroit. Published by W. B. Saunders Co., Philadelphia and London.

Miss Aikens is a woman of whom all Canadians should be proud. Formerly superintendent of Columbia Hospital, Pittsburgh, and of Iowa Methodist Hospital, Des Moines, then director of Sibley Memorial Hospital, Washington, D.C., she has lived through every phase of hospital administration. She has learned to set a high value on the practical needs of hospitals, to get into close touch with patients, rich and poor and middling poor, and to understand the difficulties of pupil nurses.

Anything from her pen is interesting, useful and exhaustive, whether it be on hospital office work, housekeeping or nursing. Of these works there are several, and the proof of their usefulness is the fact that they go rapidly into second and third editions, as for example the *Primary Studies*. Miss Aikens has many other interests in which she is actively engaged, all of which combine to give her such wonderful breadth and humanity of aim.

"*Primary Studies*" contains all that is necessary for the pupil in her first year, and if the time ever comes when textbooks will be standardized in training schools, Miss Aikens' book should have first claim, since the possession of it would enable a pupil to face any first year problem. The subject matter is correct, and up-to-date, and presented in direct simple language.

The new points about the book are the questions appended to each chapter, the spaces set in for note-taking, and the addition of material in the sections on Anatomy, Bacteriology, Asepsis, and *Materia Medica*.

Reading the book through, one feels that it must carry with it the author's strong influence for whatever is industrious, humane, charitable and right.

HOSPITAL SUPPLIES COMMITTEE, ACADEMY OF MEDICINE, TORONTO

THE following report of the work recently accomplished by the Hospital Supplies Committee of the Academy of Medicine, Toronto, was made by Dr. N. A. Powell at the Academy meeting on October 5th:—

To Fellows of the Academy of Medicine, Toronto:

GENTLEMEN.—One year ago the Academy in its wisdom appointed a Committee on Hospital Supplies. The work of this Committee has been reported in detail to the Council from month to month, and under the instruction of that body it now becomes my duty to summarize these reports for you. The energies of this Committee have been directed chiefly to the securing of money with which to buy materials for surgical dressings, to the making up of this material into standard dressings, to their packing and sterilization, and to the forwarding of these supplies through Red Cross and Base Hospital channels to our representatives at or near the front.

In this work we have been splendidly assisted by groups of good women meeting almost daily in rooms provided for them in the Academy buildings. God bless every one of them for what they have done and are doing.

During the summer months members of the Committee and of the Council organized the summer visitors on the Muskoka Lakes and the Magnetawan River District into groups for work of a similar kind. As a result of this nearly 100,000 separate dressings were forthcoming. American visitors vied with our own people in these efforts, proving that their hearts are with us in the conflict now being waged between humanity and a foul-fighting despotism.

The Committee's money outlay for materials was only about \$1,200, but the value of the dressings packed and sent over to the sterilizers at the General Hospital was far in excess of that sum. In response to urgent appeals for aid to our brethren in Belgium your Committee were able to secure and place at the disposal of the Belgium Relief Fund Committee more than 700

surgical instruments in good usable condition. These were not archaic relics of a by-gone age, but were such as any of us would employ in our daily work. The members of your Committee reserved for themselves the pleasure of meeting the cost of having the instruments sent put into good condition by expert cutlers.

The net value of the instruments and of about 5,000 ligature packages also sent from the Academy to military hospitals would easily exceed \$3,000.

Our thanks are due to the instrument dealers of Toronto for sympathetic co-operation in this department of the work committed to us.

We appeal now and through each one of you for funds to carry on what is in progress. At least \$500 is needed at once if trying interruptions are to be prevented. Close contracts for materials have been made and we have the facilities for transforming this material into what is most in demand by hospital units now across the water.

An unlimited shell supply is hardly of greater importance. Who can estimate the value of even a single sterile dressing applied to the wounds of a son, a brother or a close friend hit when on duty in the trenches?

Funds will be forthcoming if the need for them is properly presented. Response to other calls has been splendid. Let this part of our common duty have its fair share of attention.

N. A. POWELL,

Chairman Hospital Supplies Committee.

THE NEW VENTILATION

THE *Lancet* of London, in its recent issue, contains an article by James Keith, a leading authority on ventilation, describing new methods introduced coincidentally with what Mr. Keith calls the "epoch-making" address delivered before the British Association by Dr. Leonard Hill, President of the Section of Physiology. Dr. Hill asked the consideration of nothing higher than a stuffy room. He said that the popular mind, supported by all the elementary text-books of hygiene and most standard works, is imbued with the idea that ventilation is a question merely of chemical purity of the air, whereas chemical purity is the last thing to consider and is practically negligible. Dr. Hill asserted in a letter to this newspaper, following his address, that there was continually more oxygen in a closely packed room with all the doors and windows shut than in an equal space of rarefied air in certain celebrated mountain resorts. It is a matter of scientific proof, which Dr. Hill cheerfully submitted. There is danger of bacteria in the crowded room from the exhalation of many lungs, while its heat and the windlessness of the atmosphere are most to be dreaded. Indeed, if the air breathed by the crowd were perfectly pure the room would not, in Dr. Hill's view, be at all well ventilated until it were cooled and set in motion.

The cooling and vigorous circulation of the air we breathe constitute the essential problem of ventilating engineers. The Smithsonian Institution has lately published a study by Dr. Hill, Martin Flack, James McIntosh, R. A. Rowlands, and H. B. Walker, from the physiological laboratory of the London Hospital Medical College, which shows that the chief fault of modern ventilating systems lies in their failure to keep the air moving. Therein is the virtue of open-air schools and of living out of doors—that the air is changed, and acts constantly upon the skin to stimulate the circulation and free the lungs. Mr. Keith's *Lancet* article is illustrated with cuts of mechanical devices lately installed in New York's newest skyscrapers and in the engine-rooms and stokeholds of the newest ocean liners.

which supply thousands of cubic feet of fresh "live" air every hour without discomfort from draught, besides a number of devices for ventilating offices, living rooms, cabins, and sleeping cars. With respect to the new ventilation in factories, Mr. Keith makes this observation of interest to owners:

It may be added that not only does good and healthy ventilation on the lines indicated tend towards increased efficiency, health, and happiness of the workers in crowded and overheated inclosures, but an immense saving per annum may be effected in the wear and tear of running machinery and in lubricants by the reduction of the atmospheric temperature in sultry, and often almost "tropical," engine-rooms, etc., to a more natural, normal, and less "vicious" degree; so that all round (as our American cousins might be inclined to say) better or more nearly perfect ventilation is really, after all, a paying proposition.

Incidentally, by this constant change of air, emphasized in the new system, chemical purity is practically attained. But the difference between the new and the old systems is marked, in that the new scheme includes the regulation of temperature to a requisite moisture and coolness, and the all-important features of rapid displacement. It is an article that should be consulted by the experts in this country and by capitalists and public men who contemplate the installation of ventilating plants.

McLAUGHLIN AMBULANCES

THE McLaughlin Carriage Co., Oshawa, Ont., have been favored during the past year with a large number of orders for their ambulance for overseas service. It certainly speaks volumes for this firm that they have received orders almost every month since the war started and, judging from letters that have recently come from the front, the McLaughlin Ambulance is standing up well. The McLaughlin Carriage Co. are making daily improvements on their ambulance, adapting it better to the needs of the service. For instance, the ambulances are now

much wider and are equipped with four berths with linoleum covering and metal binding, leaving an aisle down the centre for attendants to attend the patients.

There is a large box on one side to keep the tools and extra equipment for the car; on the opposite side is a box for carrying three days' rations, and in another compartment of the same box is a supply of bandages.

Inside of the body there are two compartments for carrying medical supplies, and in a box beneath the driver's seat is another compartment for carrying extra supplies in the way of medicines, etc., thermos bottles, etc.

The regular equipment includes a canopy lamp inside of the top—a portable lamp that can be carried to each berth, with a suitable fastener for attaching it. These four berths can be folded up and the car used for carrying twelve people sitting up, or six sitting and two lying down, or four lying down; also the driver and one or two attendants in the front seat and also accommodate the kits of the wounded soldiers. They are all equipped with self starters and the famous Overhead Valve Engine.

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A Letter

DOCTOR,—When consulted by patients on the important question of the laundry, won't you bear in mind the following facts regarding Taber Laundry Works, 444 and 446 Bathurst Street, Toronto: Our laundry is one of the most up-to-date and best-equipped institutions of the kind in Canada. Every department is conducted along the strictest sanitary lines. Each and every piece entrusted to us is not only washed but sterilized, and dried with super-heated air, rendering impossible the transmission or existence of germ life. Taber Laundry Works exercise also the greatest care in not taking work from houses or places where there exists contagious disease. Our patrons are protected in this way from danger. It has been our rule for years that each and every customer receives personal attention. Telephone College 8333 and 5143 for our van service. Note.—In the past few years laundry chemists and engineers have developed the modern power laundry so that it now ranks high in the public service. Sanitation has been the mainspring of their efforts. We invite professional men and visitors to call on us. For the above reasons, we ask the endorsement of physicians.

A Powerful Antiseptic

As hospital superintendents are aware, they have had considerable difficulty for many years past in finding a really satisfactory disinfectant for use in institutions, particularly so now in view of the very high price of carbolic acid. Hospital authorities should look into the claims made for Polusterine, a new antiseptic and most effective germicide and disinfectant. Polusterine is soluble in water and is also non-poisonous and non-corrosive. It will be found to have a most pleasant odor for use in the sick room, the proportion for such use being a tablespoonful in a basin of water. For use in contagious disease cases, three tablespoonfuls of Polusterine placed in the slop jar or basin of water will be found most effective. The patient's linen should be wrung out in this solution before being moved from the room, and all night vessels should be kept one-third full of the solution at this strength. All discharges should be disinfected in this way, before being disposed of. This will be found particularly important in typhoid and other contagious fevers. Polusterine used in the proportion of two to ten drops in a tumbler of water makes a most effective and pleasant mouth-wash. One tablespoonful in a pail or basin of hot water acts as a quick deodorant, and for spraying purposes one tablespoonful in half a pail of water. Polusterine can also be used for

The Spatula is Mightier Than The Sword—

especially when wielded by the Physician, in
Pneumonia, for example, to spread on previously
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"About five per cent of all physicians still adhere to the theory that pneumonia, being a so-called self limited disease, admits of no active treatment, but requires only good nursing and patient watchfulness. The other ninety-five per cent, out of their individual and collective experiences, are convinced that, with prompt treatment of the right kind, pneumonia can be often greatly lessened in its severity, shortened in its course, or (as some affirm) actually aborted. We are of the opinion that about seventy-five per cent of the physicians believe there is no single or similar remedial measure which equals Antiphlogistine in its prompt effectiveness in the treatment of this disease."

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Physicians should WRITE "Antiphlogistine" to AVOID "substitutes"

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washing cuts, sores, ulcers, etc., in the proportion of two to three teaspoonfuls in one gallon of water. This preparation is manufactured by the Polusterine Products Co. of Canada, whose head office is in Toronto.

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The Value of Glyco-Thymoline in Treating Intestinal Disturbances

THE condition of the alimentary canal in all diseases of that tract is one of either congestion or depletion of the villi.

Auto-infection follows a condition of depletion, and while this condition is not the direct cause of the "self-poisoning," the restoration to normal conditions would undoubtedly prevent septic absorption.

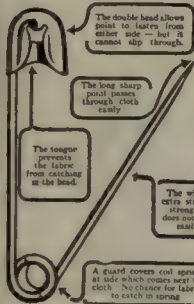
The condition in diarrheal diseases is one of stasis with a great amount of exudation of serum, the villi being greatly distended.

In either case a return to normal conditions is most readily effected by an agent producing an exosmotic action—in the one case to deplete and in the other to promote the exudation necessary to wash out the intestines and prevent auto-infection.

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HOSPITAL superintendents should enquire particularly into the merits of the "Heenan" type of garbage incinerator. It is one of the best manufactured. It is *economical* in every sense of the word, *no fuel being required* but the refuse itself. It is also essentially *sanitary*, the garbage being burned at a high temperature and *emits no odors* of any kind. Hospital men can at once satisfy the most ardent critic on these points by looking over the magnificent plant recently installed in the new Toronto General Hospital.

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Hard coal, soft coal, wood, or anything burnable, makes useful heating fuel in the "Sovereign."

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PROF. GEORGE HOWARD HOXIE, of the University of Kansas, in his most excellent book on "Symptomatic and Regional Therapeutics," states, under the heading of localized inflammation, that "the danger of infection should ever be in mind in applying a poultice, for the maceration incident to the poultice favors infection, even if in ordinary circumstances one might consider the area germ-proof."

It is thus noted how important, then, it is, in the employment of a poultice for the relief of pain and inflammation, that a sterile and trustworthy product be applied. Inasmuch as poultices are a means of producing hyperemia by the use of heat, and in so far as they do this better than by other means, it is interesting to observe that in the belief of Prof. Hoxie "the clay poultices, known best in the form of Antiphlogistine, are the best to employ, as they are sterile and clean."

The Physician's Duty

PHYSICIANS are becoming more and more impressed with the value of prophylactic measures. Therefore, to instruct patients of the gentler sex in hygienic and sanitary principles and procedures is both duty and a privilege.

It is a fact, often not entirely appreciated even by physicians, that the vaginal douche, properly employed, should be used frequently, even in the absence of any abnormal condition. Despite the opinions sometimes expressed that frequent douching is not advisable, that the natural secretions being sufficiently germicidal should be allowed to remain, etc., it is a matter of common knowledge and experience among women of any degree of refinement that proper toilet of the vaginal tract is as valuable, necessary and indispensable as the use of the toothbrush.

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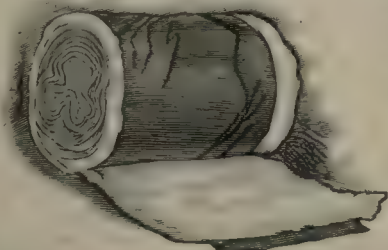
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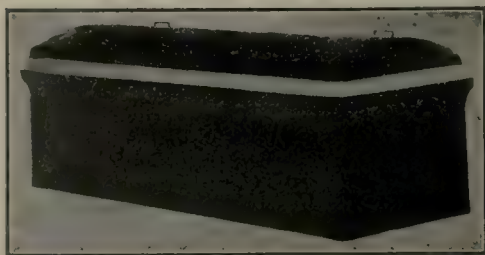
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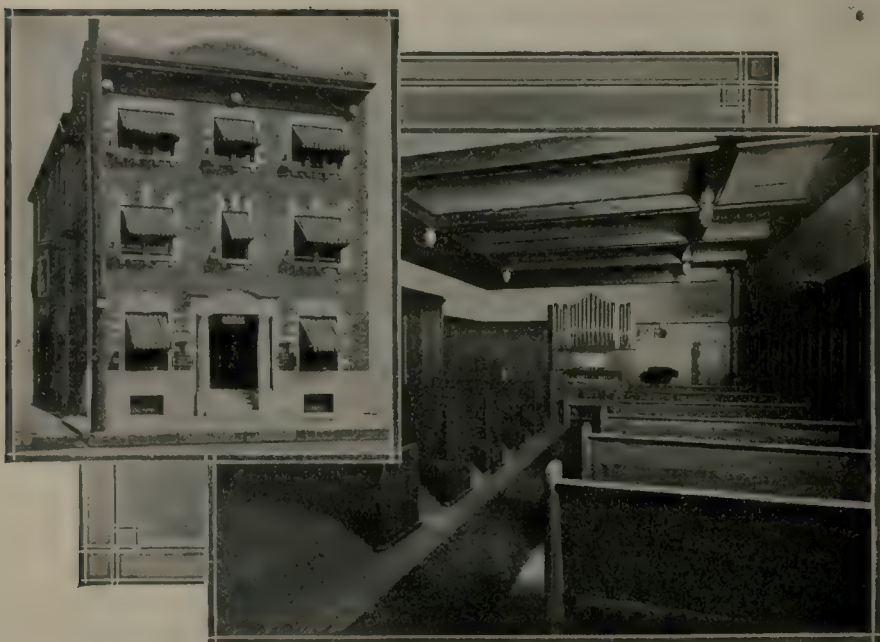
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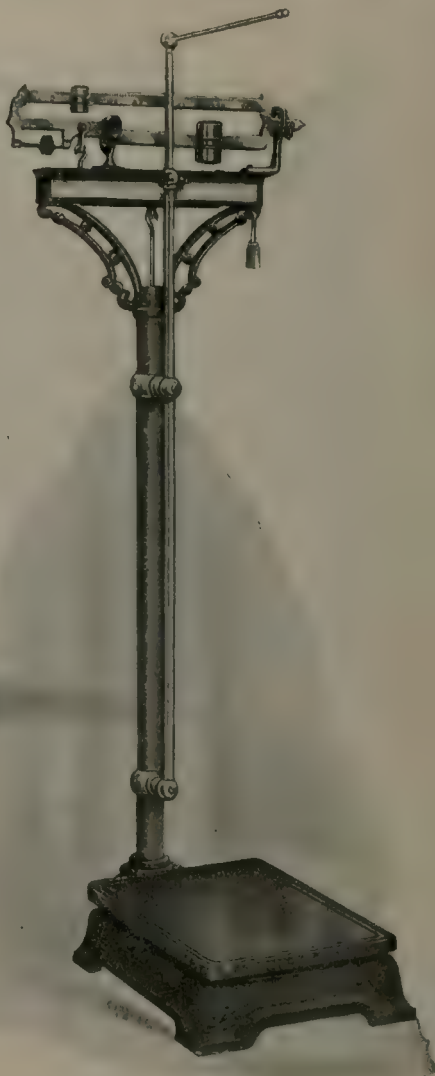
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Vol. VIII (XIX) Toronto, December, 1915

No. 6

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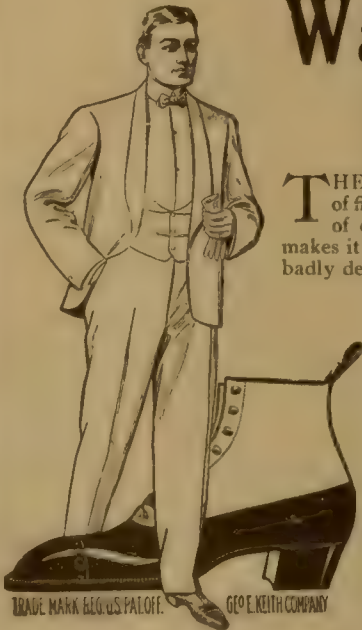
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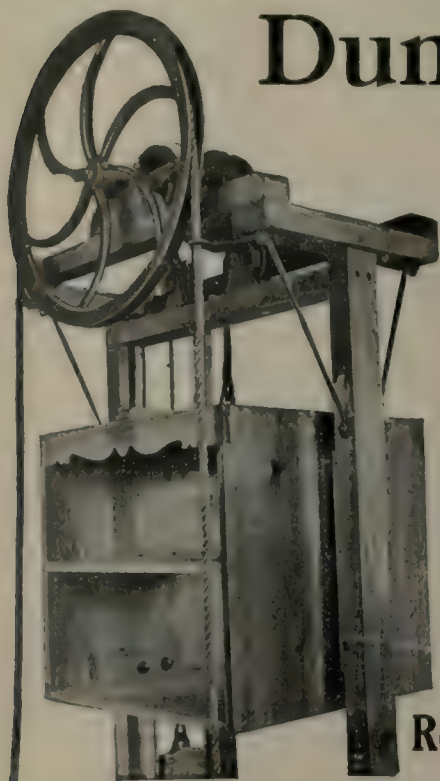
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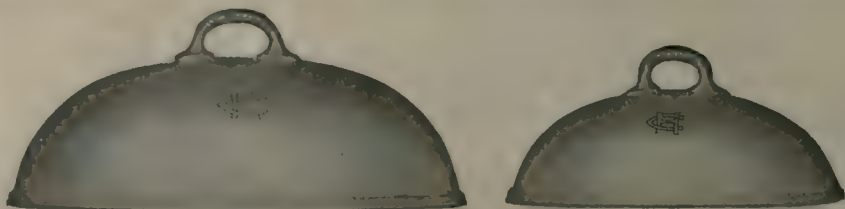
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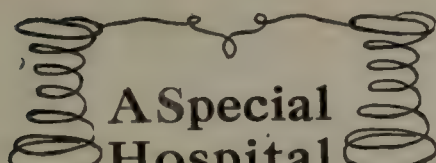
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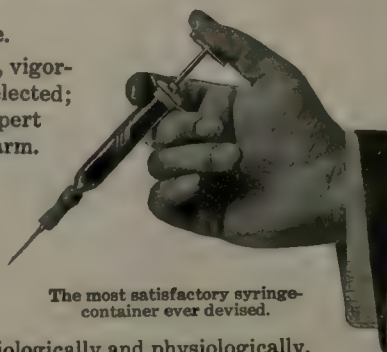
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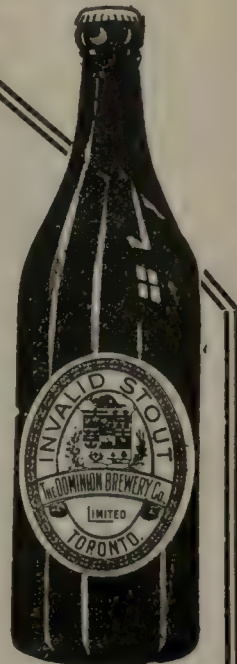
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TORONTO, DECEMBER, 1915

No. 6

Editorials

A NEW DEPARTURE

THREE university schools of medicine, Johns Hopkins, Yale, and Washington of St. Louis, are now organizing full-time clinical departments in their

respective hospitals. The heads of these departments and their assistants become salaried members of the University medical staff. They devote their time wholly to the service of the hospital, to research and teaching.

Since the occupants of these posts must necessarily be men of high standing in the medical world, there was a momentary doubt whether any could be found to make the great pecuniary sacrifice involved in withdrawing from private practice. But the true enthusiasm was found not wanting, and aspirants of unexceptional standing and skill have eagerly offered to serve.

The value of this move is best apparent perhaps to the hospital administrator, who has had to deal with the physician hurried, the physician tardy, the physician perfunctory, by reason of the stress of large practice outside the hospital walls. The great benefit will come to the public ward patient who will receive as much of the able man's time and attention as would the millionaire, if his case demand it. And beside this human advantage, and sharing equally in it, is the gain to scientific research; so that both from the humanitarian and the scientific standpoint this new plan leads upward.

Flexner, in his comparison between the English and German systems of medical training, draws attention to the fact that the one is a complement of the other. The clinical teacher in Germany is a full University professor who teaches largely by lectures. But, being able to give his entire time to study and

research, he is a man of vision and enthusiasm, and transmits the love of science for its own sake to his students.

But the German hospital, as at present constituted, affords little opportunity to the student to do practical work. He is a listener and onlooker at the bedside clinic, and has no opportunity for practical work until he has graduated.

The English clinical professor is usually a practising physician, a consultant of standing, with a large medical clientele. He is therefore glad to avail himself of the services of the senior medical student in the hospital, and utilizes him freely as a clerk or apprentice to watch and report on the patient's condition, and to aid in every way in their care. The English medical student is thoroughly at home in the hospital wards and graduates with a knowledge born of practice rather than much theory.

"Learning is a game in which, wherever possible, the learner must make the first move," is one of Flexner's aphorisms; and this is a fundamental in the English medical education. But to quote again, "An apprenticeship can rise no higher than its source." The English clinical professor, while intensely practical by reason of his rush of work, lacks the scientific enthusiasm, the vision, that the man of greater leisure knows. He is not usually an investigator, not a scientific devotee, and, therefore, fails to inspire his students in that direction. And because of these differing methods, each having the defects of its virtues, Flexner urges the merging of both in a single method.

The three hospital schools mentioned above are but leading the way. All of America's best teaching hospitals will follow, since both the public and the profession will be quick to comprehend the great advantages derived from such an innovation.

The American ideal is not yet firmly moulded. It is in course of formation. And here, if anywhere, a combination of the best in both systems may be made.

RECENT HOSPITAL WAR NOTES

A NEW phase of hospital war work is being undertaken by Switzerland in giving hospital care to prisoners of war of the belligerent adjoining countries. Those whose health is suffering from minor injuries that are not sufficiently serious to permit of their being returned to their own country, and those whose health is suffering from prison camp confinement, will be taken by the Swiss hospital authorities.

The prisoners will be placed on honor parole not to attempt to return home, and will then be given as much freedom as is considered necessary for the re-establishment of their health.

On representations made by the chairman of the British Hospital Association the director-general of the Royal Army Medical Corps has agreed to extend to all hospitals connected with medical schools the arrangements under which the resident staffs are

granted honorary commissions in the A. M. C. All applicants for commissions must be registered physicians. They will be called upon for service after three months in hospital residence, but may remain on duty in the hospital until that time. Also all applications for these honorary commissions must be made to the War Office through and by the hospital authorities who will vouch for those whose names they submit. This scheme enables the hospital to retain their young resident doctors for three months and ensures the A. M. C. young men of some practical experience.

"Before making this arrangement," says *The Hospital*, "shortage of doctors became acute, and the War Office came to the assistance of the London Hospital authorities by sending to the hospital seven Canadian doctors who came over with the Canadian contingent, and who volunteered for hospital work. These doctors remained at the hospital for a period of six weeks, and earned the hearty thanks of the Governors for the manner in which they readily accommodated themselves to the routine of the hospital, and for the highly efficient way in which they performed their duties."

The following incident, as related in our English contemporary, requires no comment:

Lieut. Procter, who was the son of a medical man, wished to become a medical missionary, and with that object in view he entered Middlesex Hospital as a student, leaving it shortly after war broke out, when he obtained his commission. He was recently killed in action. After his death his mother received from a sergeant in his company a letter in which occurred the following beautiful passages: "You cannot imagine how much we miss him. We are from all ranks of life, and each and every

one of us looked to him as our leader and our hope and worshipped the ground he trod on. When I found he had been shot through the left eye and right through the brain, I believe I went mad. I carried him down to the trench and he gasped his last. My God! I and every man in the whole company would gladly have sacrificed all our lives if we could only have saved him." A hospital should, indeed, be proud of its students who can command such respect as this.

Original Contributions

LITTLE JOURNEYS

BY DR. JOHN N. E. BROWN,
Superintendent, Henry Ford Hospital, Detroit.

AUGUSTA VICTORIA HOSPITAL,* IN SCHÖNEBERG (BERLIN).

THE institution was built seven years ago and was, like the hospital in Rixdorf, built on paper first in its entirety, although only partly completed at first. The portion first constructed included all the centralized functions to provide for 600 patients and pavilions for 350. After running three years, the remaining buildings of the original plan are nearing completion. In all, the plan contains twenty-five buildings on a site containing 16.5 acres; and the manner of treatment given the remaining ground is most pleasing. As is true of all the great German hospitals, the salutary effect of pleasant surroundings out-of-doors have here in no wise been overlooked in their value for treatment. It is interesting that a large part of the shrubbery and plants was contributed by wealthy people from their own gardens or from what they had left from orders for their gardens.

As indicating the trend of thought regarding the care of infectious diseases in the most recently developed German hospitals, it is interesting here, as at Virchow, and as later seen in the Eppendorf in Hamburg, to see the pavilions for this division on the same grounds with the others. That this is not only possible but also safe, with proper administration, there can be little doubt. Here the patients are kept from any possibility of overstepping their bounds by a fence of wire netting which surrounds the pavilion devoted to infectious diseases.

* Report of a Committee consisting of Dr. Homer E. Safford, Dr. Wm. F. Metcalf, and Mr. W. B. Stratton, Architect, of Detroit, to the Board of the Detroit General Hospital.

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15	Women for kitchen work.

About 75 or 80 others, including engineers, firemen, laborers, gardeners, carpenters, locksmiths, etc.

The ward pavilions all have their long axes in a north and south direction. There are no connecting corridors, with the exception of one short one between the operating building and the nearest pavilion. The administration building occupies, as usual, the central position on the front, which here is toward the north, and is the same type of building as those described at Nuremburg and Dusseldorf—a central passage or portal through the building with entrances from this passage at either side. Entering the broad open space back of the administration building we face the private patient building opposite, and at either side of this central park, which is over two hundred feet square, lies, first, on the left, the operating building and on the right the bath house. By an arrangement not previously seen, the ward pavilions are placed around this group at the outer edge of the grounds. One of these comes to the front corner of the grounds at either side and extends backward along the outer border of the grounds in the same line as another similar pavilion behind it. A third pavilion, parallel and opposite to this second one, lies back in the same line as the operating building on one side and the bath-house on the other, bringing it

alongside the central open space next to the private patient building. In this way the private patient and all the medical and surgical pavilions are grouped around the operating and bath-house and the open air park, so that no building, even a ward pavilion, is shut in between two other buildings, and there is an open outlook at least in one direction from each. Beyond the private patient building lies the children's pavilion, with a most pleasing outlook upon a second open space forming a triangle, at the long side of which lies the group of service buildings: first the kitchen, then the boiler and engine house, the laundry and the ample disinfecting establishment in their turn. In passing, it is well worth mentioning that this is one of the hospitals visited where an especial effort had been made to give the tall chimney beside the boiler house a pleasing, even an artistic, effect. The same was true of Cologne.

At the far end of the grounds is an ample pathological building, where provision is made for different branches of the scientific work, though this institution has no direct connection with medical teaching.

A feature to be noted here is that the nurses have quarters in the third or half-storey over the pavilion in which they are employed (just as at Virchow, where they have a small second floor over the head-house). They have a dining-room in common, however.

Turning now to the particular buildings, it may be well to report the answers of the very able director of this institution, Dr. Korbacher, to certain questions asked by the committee. In reply to our question whether in the course of their experience they had wished to change from the two-storey plan of ward pavilion, he said that for the medical and surgical services he regarded two storeys as the ideal, while for infectious diseases he saw in the one-storey pavilion (as they have here) the only safe plan. He pointed out that with a two-storey plan the ordinary pavilion really can do very well with a very limited elevator service, which would never do for three or more storeys. He, however, said that the one building which may very properly have three stories is the administration, although he said the preference in Germany is to make even this of only two. He

believes that three stories here would materially cheapen the cost of administration.

On entering the ward pavilions we see the floors uniformly covered with the same six-inch hexagonal, slightly roughened, cream colored tile seen in Virchow wards. Here, as we observed, a very general use is made of it, for even in the kitchen and laundry it is used. Although the administration building had linoleum laid over steps on the stairs, and there was some linoleum on the upper floor in the corridors, Director Korbacher said he "would not have it in the wards." "The roughened tile is harder to keep clean and is rather dear, but still we are using it in our new buildings in preference to any other."

Entering the pavilion at the end with the larger head-house, we are first in a central corridor about seventy-five feet long, leading directly to the ward. About thirty feet from the door this is crossed by a "cut-off," or light-and-air corridor. Thus a corridor of exceptional qualities is produced. It is lighted from three of its four ends. In the part leading to the outside end door it is eleven and a half feet wide and contains the stair going to the second floor. The cross corridor is eight feet wide and the end leading to the ward is nearly ten feet. At the right hand, opening off from the cross corridor, in the corner most remote from the ward, are the rooms for storing clean linen and dressings. At the left, corresponding to these, are a room for soiled linen, with a separate outside door, and a bath to which new patients are sent. Beyond the cross corridor, we first pass two small wards, for two beds each, opening on either side of the corridor. On the left, between this and the ward, is a bathroom with two separated baths, with nickel-lined bath-tubs, and a room for the nurses' headquarters with window overlooking the ward. On the other side of the corridor we enter an ante-room extending to the window, and from this a door opens on the one hand to a toilet with three closets and on the other into a sink or slop-room.

We now enter the ward, which is $29\frac{1}{2}$ by 82 feet and contains 24 beds, and at once recognize in it one of the best-lighted and pleasantest that we have seen. The windows are $3\frac{1}{2}$ feet wide and 9 feet in height, extending nearly 12 feet from the

floor. It is safe to say that no feature in building counts for more in giving pleasantness to wards or rooms than this, of having high windows. The proportion of glass to wall space between is here rather unusual as well. The window, as above stated, is itself $3\frac{1}{2}$ feet wide and the intervals between them alternate between 1 metre (39.4 in.) and $\frac{1}{2}$ metre, so that, on a level with the windows, the proportion of glass to wall space is 10:7.3. The ceilings are 17 feet high.

Another feature of the windows, important from the standpoint of ventilation, should be noted. This is the division of the casement sashes so that the upper window sash can be opened or closed independently of the lower one. The lower casements extend but 2 feet from the window-sill and the upper ones are 5 feet in height, while above them is the transom extending another 2 feet toward the ceiling. Both the inner and outer sash of the transom here open inward and are hinged at their **lower** edge. The windows of the casements also were double.

Passing out of the other end of the ward, we enter an ante-room, 8 by 12 feet, which opens at our right into a lavatory; in front into a large central day-room, 20 by 25 feet; and at the left into a diet-kitchen, of the same size as the lavatory opposite (8 by 12 feet). This diet kitchen and its separate outdoor connection is one of the distinctive features of this Schöneberg pavilion plan. The space remaining in the corner, alongside the central dayroom just mentioned, is divided between an open *liege-halle*, or out-of-door bedroom, and a winding staircase which connects the outside door with the diet kitchen of the upper ward. Out upon a landing the door opens from the diet kitchen of the lower ward. By means of this direct stairway the carrying of food into, and dishes out of, the building in no wise disturbs the ward or gets in the way of the nurses. It should be recalled that by a separate door at the opposite end of the building the soiled clothes are removed, likewise without commotion.

Returning now to the dayroom, with its large windows opening to the south and its suitable atmosphere for the convalescent but less sturdy patients, we find not only the out-of-door room, or *liege-halle*, on the corner next to the stairway just described, but also another of twice the size at the other side

of the day-room. These outdoor rooms seem to have all the advantages of projecting balconies but are less exposed to annoying winds.

There is little doubt that here is a ward pavilion plan that contains more talking points than almost any seen up to this time.

Note some of the advantages:

1. Complete separation of the toilet and bathing conveniences, dirty linen, etc., from the diet kitchen and living quarters of the patients.

2. Food and laundry attendance having separate entrances and no occasion to disturb patients.

3. Toilet and slop-rooms have good sunlight and fresh air.

4. Quiet rooms well removed.

5. Nurses have good outlook over patients in wards.

6. All advantages of both day-room and balconies.

7. Remarkably pleasant wards, owing to the high windows, easy ventilation and broad window by every bed.

8. A double bathroom, with privacy to each bath.

9. Perfect lighting and ventilation to the large main corridor, owing to the cut-off across the central part, windows or glass door in three directions and good width of corridor.

10. Separate bath for patients just received.

The system of ventilation here is the warm-air indirect combined with warm water direct heating, the indirect being the natural means of ventilating without mechanical appliances.

The air in entering the basement of the building passes over filters before going through the warming chambers.

An interesting point in construction in Schöneberg is the use of steel door jambs.

In cold weather the food-wagons are heated with charcoal.

OPERATING BUILDING.

One main operating room, 26 x 30 feet, facing the north, and another, 16 x 24 feet, facing the west. The plan is most simple and the appointments complete. Along the wall between the main operating rooms are faucets from which can be

drawn sterilized water, normal salt solution, bichloride solution, lysol or carbolic acid solution, all of these being kept in stock reservoirs in the sterilizing room.

Opening into the operating room from other doors are the instrument room, anesthetizing room and the main corridor. Another interesting feature is that the clock is behind glass in the wall over the corridor door. The walls of the operating room are of tile. The lighting is from windows sixteen feet high, three of which windows together at the north making an aggregate width of sixteen feet, while to the east and the west are windows of the same height and eight feet wide.

There are no wash-basins in the large operating room. The surgeons object to the splashing.

An unusual feature is a cold room, in which rubber goods—sheeting, tubes, catheters, etc., are kept—with much satisfaction as well as profit.

No free patients are provided for in Schöneberg—only I, II and III Klassen. The last mentioned in the large wards, and the others in the private patient building.

FIRE PROTECTION AND PREVENTION IN OLD HOSPITALS *

BY JOHN M. PETERS, M.D.,

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PREVENTION, rather than cure, is as sound and as practical when applied to the subject of fire as to that of disease. Preventive medicine is the aim of scientific medicine of to-day, and preventive measures against the starting and the control of fires are the aims of men and corporations whose time, thought and money are given towards these ends.

We point with pride to our wonderful fire departments, to their equipment, to the promptness with which their apparatus is brought to the scene of fire, to the bravery of the men, etc., yet figures show that the number of fires in this country is out of all proportion to the number occurring in foreign cities, and that the human and financial losses are very much greater. Why is this so? Why should it continue to be so?

Here, where wood has been so cheap, where inadequate laws are in force, where adequate laws are not enforced, where carelessness is allowed, where the main question after a fire is, "What was the loss?" and not "What was the cause?" the matter is held lightly unless the damage to either life or property is heavy.

As my subject is "Fire Protection and Prevention in Old Hospitals," I must limit my remarks to what can and should be done to this end in buildings constructed before the importance of this subject was appreciated by institutional people.

To find out what fire insurance companies think of institutions as fire risks, ask your agent for the rate as compared to that for insuring factories, places of business or residences.

Factory Mutual Companies were organized to insure factory buildings, and are among the largest companies in the world. For years they have employed experts, have experi-

* Read at the American Hospital Association, San Francisco, Cal., June, 1915.

mented as to materials, constructure and safeguards. Before the property of a corporation is accepted as a risk, it is necessary for that corporation to meet the requirements of these insurance companies, and periodically after that inspectors come at odd intervals during the year, make thorough inspections of the property and report in writing as to the condition of the plant, make recommendations which are checked up by the next inspectors, who are different men, and who, if the recommendations are urgent and have not been complied with, will report to the Home Office, which office will want to know the reason why.

I am indebted for what immediately follows in the paper to the president and engineers of the Blackstone Mutual Fire Insurance Company, one of the Factory Mutual Fire Insurance Companies.

The engineers of the Blackstone Mutual Fire Insurance Company report as follows on "Prevention of Fires in Hospitals":—

"At present hospitals fall in that class of fire risks where a full protective system of automatic sprinklers, etc., has not become the rule as it has in high-grade manufacturing plants.

"The following notes are intended to indicate a protection against fire which should be installed, and the principal precautions to be observed in order to make a hospital as nearly immune from loss by fire as seems practicable without the full protective equipment implied by 100 per cent. sprinkler installation.

"1. *Order and Neatness*.—It is a fundamental principle applying to all buildings for whatever purpose they may be used that the fire risk is greatly reduced by maintaining excellent conditions of order and neatness throughout the premises. This fact has long been recognized and is emphasized by the constantly recurring fires in second-rate apartment houses where the causes of fire are directly traceable to piles of rubbish left under stairs, in dark corners of basements, and in similar remote places.

"Not only do piles of refuse matter furnish light fuel for maintaining a brisk fire, but they often contain substances

which may start spontaneous combustion. The materials most likely to ignite spontaneously are certain oils which have been used on waste, or polishing cloths, or spilled into waste matter. It is known, for instance, that a very small amount of oil in contact with lamp black will ignite spontaneously, especially under conditions of high humidity. Linseed oil is very dangerous.

"All waste matter should be removed each day to points where fire resulting in them could do no harm. Combustible waste is generally burned under the boilers each night. All waste papers, cloth, shavings, etc., should be collected during the day in metal cans, and should be kept in these until finally destroyed.

"2. *Automatic Sprinklers.*—The points at which automatic sprinklers will seem necessary will depend somewhat upon the construction of buildings. Under general conditions it may be stated that sprinklers should be installed in attics, basements, kitchens, power and heating plants, workrooms, such as sewing-rooms. If power and heating plants are of non-combustible construction throughout, sprinklers are not required.

"Water should be supplied under good pressure to sprinkler and hose lines through a pipe not less than 6 in. diameter, connected to a large size public water main. If there is a yard where hydrants may be installed, this water connection should be not less than 8 in. diameter. In some cases it may be necessary to install an elevated tank or a pump as secondary water supply.

"3. *Small Hose.*—In portions of the buildings not enumerated above it is desirable that lines of small hose be available. It is best that the hose be attached to stand-pipes, which should preferably be located in or near stair towers, so that the hose may be used up to the last moment, then the person using it may escape safely at the stairway. The size of this hose should be not over 1½ in. diameter, 1¼ in. diameter being the more common size. The nozzle has an outlet of about ¾ in. diameter. Under high-water pressure hose of this size can be handled easily by women and others not accustomed to handling fire apparatus, while large hose is sometimes dangerous for one strong man to hold alone.

"4. *Fire Extinguishers*.—It is desirable that for 'first aid' purposes there be quickly available in all parts of the plant a very simple extinguishing agent of one sort or another. Where their appearance is not objectionable, pails of water are the simplest, most obvious and easily applied of these 'first aids.' These are usually covered and are kept on shelves some five feet above the floor, and in groups of three or four each. One fire pail to each 1,200 or 1,500 feet of floor surface should be sufficient.

"Another very good arrangement is on the market, consisting of a painted metal barrel with hinged cover, nearly filled with water, and inside this are placed four to six metal pails nested together.

"Chemical extinguishers, when well made, are very useful and not objectionable as to appearance. They are rather heavy, however, for women to use, and the method of use is not so obvious as in the case of fire pails. This type of extinguisher is not reliable after about one year, and should be recharged at least as often as this. For this purpose it is well to have the total outfit of extinguishers divided into groups, the recharging of one group following that of another at some stated interval.

"Dry powder extinguishers are efficient in extinguishing fires at inception. These usually consist of a tin tube filled with bicarbonate of soda, which has a smothering effect. These are easily used, but soon exhausted, and the method of use might not be entirely obvious in case of excitement due to fire.

"The 'pyrene' extinguishers recently put upon the market are also efficient under certain conditions. If the fire is confined to a small area without a decided draft of air across it, this extinguisher works well; otherwise the vapor which forms a smothering blanket over the fire is easily dissipated, and but little good results. The extinguishing element of 'pyrene' is carbon tetra-chloride.

"5. *Hydrants and Hose*.—Whenever there is any yard room about the buildings hydrants should be placed about 200 feet apart and furnished with a good supply of 2½ in. cotton rubber-lined hose, underwriter play pipes with handles, the nozzles being 1⅛ in. diameter. It is desirable that the

hose be kept in a hose house built over the hydrant, and the house should contain a good supply of spanners, hydrant wrenches, fire axes and crowbars.

" 6. *Cut-offs*.—Buildings should be separated into units of moderate size, this separation being by means of fire doors at the ends of passages connecting buildings, or in the case of very long buildings the doors may be placed also at partition walls. Of course there should be no windows in such walls if the fire stop is to be efficient. If windows are necessary at points where fire might easily be communicated from one unit to another, these should properly be of steel sash, glazed with wire glass.

" The best type of fire door is composed of a three-ply wood core covered with terne plates, the joints being locked with double fold in such a way that no nails are exposed. These doors are mounted on a heavy steel-bar track, inclined so as to cause them to close by gravity. They may normally be held open by a weighted cord or chain, containing a fusible link placed in a door opening, so that the first blast of hot air will cause it to fuse and allow the door to close.

" These doors may be placed in a recess in the wall, if the latter is constructed with this idea in mind, in which case the door is invisible ordinarily.

" Not only should rooms on the same floor be separated from each other, but there should be provision to prevent fire from spreading from one story to another. This provision is usually made by the use of fire doors at openings leading into elevator and stair towers. Unless thus protected such towers are open avenues for the rapid spread of fire to the upper stories. If the stairs cannot be placed in the tower, they should be enclosed with fire retardant material to obtain as nearly as possible the same result. Dumb-waiters should be enclosed with fire retardant material, and openings should be protected by doors or shutters which will be automatically released by fusible links in case of fire.

" 7. *Hollow Spaces*.—The rapid spread of fire and stubborn resistance to being extinguished are greatly promoted by floors and partitions so framed and finished that there are hollow spaces between the two surfaces. This hollow construction

in joisted framing is often felt necessary where a finished smooth ceiling is required, but in attics and basements it is usually feasible to eliminate the finish at the lower surface. The 'open joint' construction, which is then presented, makes the work of extinguishing fires much easier.

"8. *Gas and Gas Lights*.—As a means of lighting, gas is, fortunately, giving place to electricity. Its continued use for many other purposes makes it necessary to give careful attention to its proper installation and use.

"It is desirable that the supply to each building, or at least the main supply to the plant as a whole, be controllable outside the walls. This is usually done by an outside valve or by a valve inside the building with the stem extending through the wall.

"So far as possible all gas lights should be fixed in position and should be piped with iron piping. The use of gas through rubber tubing is considered very dangerous, as the rubber is not impervious to the flow of gas.

"Where there is any danger that gas lights and inflammable material may come into contact with each other, the burner should be surrounded by a wire guard.

"9. *Electric Wiring and Lights*.—Probably the greatest danger from electricity is in short circuits due to the insulation becoming injured either by sudden blows or by gradual wearing. The best method of wiring is considered to be by enclosing the wires in tubular conduits made for this purpose.

"If it is necessary to transform the current before using it, and if oil-cooled transformers are used, these should be placed outside the building. In a large installation, a small fire-proof structure is best for containing the transformers, but if only a small amount of current is used, the transformers may be placed on poles at a safe distance from buildings. It is also desirable that the lines carrying the primary current be furnished with lightning arresters.

"Fuses on the inside wiring should be of approved manufacture, and groups of these should be placed in closets with closely-fitting doors. A metal closet is best for this purpose, though wooden closets lined with asbestos paper give fair protection.

" There is such a variety of fuses on the market that no general directions as to selection can be made, but it may be said that it is well to avoid the refillable type. If electric lights are used in places where there are inflammable vapors, a vapor-proof lamp should be used.

" When electricity is used for other purposes than lighting (e.g., for heating flat-irons), special care should be taken with the wiring to prevent rapid wearing of the insulation, which may easily result in short circuits. When the wiring is much moved about as in the use of flat-irons and electric cutters, a weak spot is likely to develop by frequent bending. This point can easily be determined in advance, and should be protected by a coil of wire or similar means, so that a short bend cannot occur.

" In cases where current is used for heating, provision should be made against accidentally leaving the current active when it is supposed to be turned off. The best safeguard is to introduce a small 'pilot light' in the circuit at a point high above the floor, so that it can be readily seen from any point of the room, and will be burning so long as the current is flowing.

" 10. *Volatile Oils*.—The main supply of any volatile oils used should be stored in metal tanks buried outside the building. The supply may best be drawn by means of small pumps designed for this purpose.

" Benzine, gasoline and naphtha should never be stored even in small quantities in a basement. The vapors of these oils are heavier than air, so that if stored in a room below the ground level the vapors cannot escape to the outer air. If it is necessary to store these oils in a room above the basement, such a room should be well ventilated at the floor level. It should be remembered that severe explosions may result from these vapors, and the selection of a storage place should be made with a view to prevent as little damage as possible if explosions should occur.

" These volatile oils should be used directly from safety cans of approved construction. In general cans containing not more than one pint will be found suitable for use in cleaning, etc.

" 11. *Fire Alarm*.—A fire alarm box should be secured near the premises, if possible in the hospital yard, and in a conspicuous place.

" 12. *Fire Drill*.—It is very important that the permanent attendants should be instructed and reviewed at intervals in the matter of behavior if a fire should occur. The principal points with which they should be very familiar are knowledge of location of exits and all means of reaching them, location and use of small hose, fire doors and extinguishers, and the location and operation of fire alarms. They should also know the principle of operation of the fire doors. They should understand the importance of keeping them free from any obstruction which would prevent them from closing in case of fire.

" 13. *Fire Brigade*.—If possible, there should be an organization for the purpose of handling the larger units of apparatus, such as the hydrant hose streams. The men composing such an organization are usually engineers, firemen, and such mechanics as may be employed.

" 14. *Weekly Inspection*.—It should be the duty of some one reliable person to make an inspection at least as often as once a week of all fire-fighting apparatus to see that everything is in place and in good condition, that all valves are open, that no combustible material is left near steam pipes, that all waste matter is promptly disposed of, and all fire doors unobstructed. He should make a detailed report to the superintendent or other official.

" 15. *Smoking*.—It is desirable that smoking should be avoided in every part of all buildings. If it is not feasible to carry out such a rule, it should be possible at least to prevent smoking in attics, basements, store rooms and such other places where a fire might not be discovered as soon as started.

" 16. *Watchman*.—A reliable and able-bodied man should be employed to make rounds not more than one hour apart at night. There should be stations established at such points throughout the buildings that the watchman in visiting them will have the entire plant under his eye in making a complete round. A record of his call at these stations should be made on an electric or portable watchman's clock, so that positive evi-

dence may be had that his visits were made at the appointed times."

From the report on "Fire Safety in Public Schools," made to Mayor John Purray Mitchell of the city of New York, by Fire Commissioner Robert Adamson, I have abstracted the following:—

"Each building should have a city fire alarm signal box and gongs of mechanical, electro-mechanical or electrical construction.

"Every building should have a sufficient number of fire-proof stairways and of exits to permit of its occupants vacating the same.

"Every building should have at least two exits, remote from each other.

"All inside stairs should be built of fireproof material.

"All stairways of all buildings should be enclosed on each floor with fire and smoke proof partitions and doors. All such doors should be self-closing.

"All stairways should be not less than three feet wide, and not more than six feet wide without an intermediate handrail.

"Stairway terminals should be free and clear of any and all obstructions that would interfere with or retard the flow of traffic in any manner.

"All stairways, landings and passageways leading thereto should be kept free from all loose furniture or anything that blocks or narrows the exits.

"All doors opening on stairways should open on platform equal to width of the door.

"Outside fireproof stairways should be provided in buildings where present stairways are insufficient or inaccessible and it is found to be impracticable to build an inside fireproof stairway.

"All terminals of outside stairways should lead to the street where possible; otherwise, if to yard or court, there should be provided proper fireproof exit to street without crowding any exit used for other stairways.

"Half doors and windows at openings leading to fire-escapes should be replaced with doors of at least 6 ft. 6 in. in height.

"All clothes closets on half-story levels, opening on line of stairway, should be discontinued, unless there should be a separate stairway leading thereto.

"All ladders leading to roofs should be of the double-rung type, constructed of iron and braced in a firm and substantial manner. This includes all ladders leading to attics and those to a scuttle or bulkhead.

"Platforms should be built in unfloored attics, at location or scuttle ladders, and protected with 2 x 3-inch guard-rail.

"The stairs and connecting passageways leading from cellar to first story on or about the same level as the boiler-rooms should be enclosed in fireproof partitions, at either end of which there should be fitted a fireproof door, one of which should be hung on spring hinges or operated with an automatic spring, the other to be a standard automatic fire-door, which, when open, should be protected by a substantial steel enclosure.

"All doors should be kept entirely clear of encroaching furniture. There should be a clear space at each door. Loose furniture should be removed from all aisles and passageways, which must be kept clear at all times.

"Wooden doors along the line of exit stairways should be replaced with doors of fireproof material, provided with self-closing devices.

"Where hooks are used to hold stairway doors open they should be replaced with automatic catches or holding devices.

"Exit signs should be provided, the letters and figures on which should be not less than four inches high. All movable signs should be of substantial material.

"All doorways from hallways should be designated by exit signs, numbered on all floors alike, as, for instance, a stairway shall be numbered the same on all floors. After all stairways have been thus numbered, the succeeding numbers may be used for any other exits.

"In all buildings lights with red globes should be provided over all exit doors and stairways, and outside fire-escapes should be properly illuminated at night.

"The doors of all exits should open out.

"In every case, where practicable, the floor areas should be divided by approved fireproof partitions, all openings in which should be protected by self-closing fireproof doors.

"Attics and open cellars should not be used for the storage of furniture, books, lumber, etc.

"Special provision of a fireproof storage room in cellar or basement should be made therefor.

"Benches and the floors about the same in carpentry work-rooms should be kept clear of all accumulations of sawdust, shavings and litter of all kinds.

"All closets under stairs should be removed wherever possible. Those that cannot be removed should be vacated and kept securely closed against use.

"Janitor's storerooms, in which supplies such as oil waste or paint are kept, should be of metal or other fireproof material, with self-closing doors.

"All doors, windows and transoms in storerooms should be of fire-resisting materials.

"Enclosure of fire-resisting material, with proper vents and self-closing door, should be provided for storage of oils, etc.

"Enclosures of fire-resisting materials should be provided for storage of sawdust.

"Metal receptacles, with automatic-closing covers, should be provided to receive waste paper and refuse.

"Fireproof closets, with self-closing doors, should be provided for storage of paints, oils, etc.

"Unprotected wood enclosures should not be maintained about boilers, machinery, pumps, coalbins, etc.

"All brick-enclosed coalbins should be constructed so as to have an outlet at each end to the outer air, consisting of an 8-inch pipe, so that air may circulate through the same.

"All wood chutes or shafts should be made fireproof.

"All light shafts should be constructed of fire-resisting material throughout, or closed up if conditions warrant.

"All wood lining under soffits of stairs should be covered with fireproof material.

"The ceilings of all boiler-rooms, cellars and basements, and all wood ceilings of non-fireproof buildings should be fireproofed.

"All boiler-rooms should have two means of exit; where below ground level, one to be by means of an iron ladder to an area-way.

"All attics of non-fireproof buildings should have at least one approved fire-stop, with an additional stop for all in excess of 5,000 square feet of area or fraction thereof. All doors through same should be fireproof and hung on strong spring hinges.

"Partitions should be of plaster board, covered with 26-gauge metal or other approved.

"In large open attics, where subdivisions are already made or provided for, means of access should be provided to each of such subdivisions from top floors.

"A ventilator or skylight should be installed over each section, in the proportion of 100 square feet to 5,000 feet floor area, and same should be protected by wire guards.

"All frame structures in courtyards should be removed.

"Steam or hot-water heating pipes should not be placed within two inches of any timber or woodwork, unless the same is protected by a metal shield. When so protected, the distance should not be less than one inch.

"All steam or hot-water heating pipes passing through floors and ceilings of lath and plastered partitions should be protected by a metal tube one inch larger in diameter than the pipe, having a metal cap at the floor, and where they are run in a horizontal direction between a floor and a ceiling, a metal shield should be placed on the under side of the floor over them, and on the sides of wood beams running parallel with said pipe.

"All vertical wood boxes or castings protecting the coverings on steam or hot-water heating pipes or piping in which the water contained therein exceeds 200° F., should be replaced with metal.

"All indirect stack enclosures of wood should be removed and replaced with those of metal as rapidly as possible.

"All steam coils, radiators or pipes in wardrobes should be protected by a screen or heavy wire netting, so that clothing may not come in contact therewith.

"All steam radiators or coils in all halls or passageways should be protected by metal shields. All vertical steam pipes and returns within reach should be covered with insulating material protected by metal.

"All openings through floors and partitions through which steam or other pipes pass should be made secure against the passage of fire and smoke by the use of non-combustible materials.

Floor registers should be protected by a screen of $\frac{1}{2}$ -inch mesh galvanized wire, fastened up close to the under side thereof.

"All gas service mains should be fitted with a stopcock at or near the curb.

"The use of all swinging gas brackets for any purpose should be prohibited. None other than short, stiff brackets should be used.

"All brackets in basements, toilets, hallways and stairways should be fitted with detached keys, and all, including those in the cellars, should be equipped with wire protectors.

"In cooking classes, where a number of small gas stoves are used, teachers should be cautioned as to the use of matches and pupils instructed as to the proper method of lighting matches, as well as disposition of match ends after lighting gas.

"Friction lighters should be used, where possible, in place of matches in classrooms.

"Rubber hose should not be used for connections for gas ranges or gas stoves; neither for burners, except for laboratory tables.

"All woodwork at or near gas stoves should be carefully protected by stone linings or metal lined with asbestos.

"Gas stoves or hot plates should not be placed upon a wood-top table or other similar surface, unprotected by stone or metal, with asbestos beneath same, or other incombustible materials.

"Gas ranges should rest on a base of stone, cement or 26-gauge metal, lined with asbestos $\frac{1}{4}$ -inch thick.

"All gas-meters should be provided with platforms or shelves of fire-resisting material.

"Combustible material should not be stored under or near gas-meters, or electrical meters, or switch-boards.

"For ordinary structures the standard fire-extinguishing appliance equipment should consist of:

"One 3-gal. approved fire extinguisher.

"One 5-lb. flat-head axe.

"One 6-ft. hook, Fire Department pattern.

"Additional fire extinguishers: On floors where carpentry, chemistry, sewing, etc., are done, and in which combustible material of any kind is stored, one additional extinguisher should be provided, and where such floors cover areas of 10,000 square feet two additional extinguishers should be provided.

"Fire buckets: Two standard fire buckets, 10 quarts capacity, should be placed in each carpentry shop.

"Automatic sprinklers should be provided in large store-rooms or workshops on first floor or below, and in all chutes, one being placed at top and one at bottom. All supplies should be from house service.

"Water connection, with length of small hose attached, should be placed in all furnace-rooms for use about ash-pits, and similar connections should be placed where waste paper or other refuse is burned.

"Oil of any kind should not be applied to wood floors.

"Kerosene oil should not be used for cleaning purposes alone or combined with any other oil or preparation.

"In the United States we are so prone to consider the rights of the individual that we are apt to overlook the rights of the aggregation of individuals. If laws requiring uniform fire-resisting building construction after any fixed date would be enacted and enforced, it would only be a question of time that the benefit would occur to the community in the way of reduced fire losses, reduced insurance premiums, and reduced expenses for maintaining fire-fighting equipment and added security to life and property interests."

"Statistics show that in 1907 our preventable fire waste, according to European experience, amounted to over \$366,000,000, or nearly enough to build a Panama Canal each year.

" Carelessness was found to be the cause of at least 56 per cent. of the fires occurring in the city of Boston during a period of twenty-five years.

" Mill construction has been designated slow-burning, because, although largely composed of combustible materials, intelligent use and sufficient mass have greatly lessened the chance of the rapid spread of fire, or the probability of serious structural damage before the fire can be brought under control through the equipment of fire protection devices which should always accompany this type of construction. Such equipment includes watchman's service, automatic sprinklers, fire pails, hose, pumps and hydrants, besides an efficient private fire brigade. It is these safeguards, coupled with the better adaptation of all manufacturing or storage buildings to the risks inherent in their occupancy, that have caused the losses in the older Factory Mutual Fire Insurance Companies to average four cents per hundred dollars annually, as compared with sixty cents in other property (or a ratio of one to fifteen), while the average cost of insurance to the owners of approved factories has been reduced to less than seven cents.

The following notes are excerpts from a "Hand Book on Fire Prevention and Protection," compiled by Joseph K. Freitag, and from various other sources:—

" In Europe they have learned that fire waste emanates in larger part from either criminal indifference or criminal intent, and that to this extent it is preventable through laws which go directly to the root of the evil by holding the individual citizen to a rigid accountability for every act of omission or commission which tends to increase the danger. In all parts of Europe where the Code Napoleon prevails, the law of Voisinage holds the landlord responsible for his negligence to all concerned, tenants or neighbors, and if fire originates from carelessness of tenant, he is held responsible to all concerned, landlord or neighbors. This law places the responsibility where it belongs and works automatically in making everyone interested in having his premises as safe as they can be made by human foresight."

"If our enormous fire losses were unavoidable, speculations as to the improvement of conditions would be idle," but that such property losses are preventable is irrefutably shown by comparing statistics of fire losses in the United States and in Europe.

"Reports of United States' consuls in Europe show that the average per capita loss in six European countries for a period of five years was \$0.33, while the fire losses in five of our States during five years was \$2.12 per capita, or six and a half times as great. Figures show that at least 27 per cent. of the losses from fire occurring in the country resulted from fires extending beyond the building of origin, while abroad, the percentage of such losses from the extension of fires to other buildings was a fraction of 1 per cent."

Management.—Mr. F. M. Griswold who, through his connection with insurance interests, has had a wide experience in fire prevention matters, has stated that, whatever the construction of a factory or manufacturing building, or the nature of its occupancy, or the completeness of its fire protection, shop management or "good housekeeping," is the the most important basic element in fire prevention, the acceptable practice of which requires the following:—

"The enforcement of rules which will insure cleanliness throughout the plant as a matter of daily practice, not only as a means by which the possibility of fire may be avoided, but as of profit.

"(a) Floor sweepings, greasy papers, oily wiping waste, paint, rags and like material, subject to spontaneous ignition, should be deposited in 'Standard' safety cans suitable for their reception, the contents of which should be safely disposed of each night, preferably to be burned under the boiler.

"Ashes should be kept only in metal receptacles; should be removed from building each night, and not be deposited in contact with combustible structures or material.

"(b) Workingmen's clothes and overalls, when not in use, should be kept in ventilated metal closets or lockers not in contact with readily combustible material.

"(c) All combustible process waste and other refuse should be carefully disposed of by removal from the buildings at the

close of each day's work, and be safely deposited in locations not endangering the plant in case of ignition of such refuse.

"(d) All volatile and inflammable fluids should be kept in and used from 'Standard' safety cans; not in excess of one day's supply of such should be kept inside of building at any time, and all unused portions should be removed to a place of safety outside of the plant at the close of the day's work.

"(e) Watchman's service should be maintained at all times and the record of service be shown on such mechanical device as will not permit evasion of duty; records should be examined and checked over, filed and dated each day.

"The principal auxiliary aids in detecting or extinguishing incipient fires, or in coping with particularly severe fires, or in preventing panic and confusion among employees, consist of the following:—

"1. Automatic sprinklers.—These should be ranked first among auxiliary aids, because they both detect and extinguish fire.

"2. Automatic fire alarms, ranked second in importance because of their automatic functions in discovering fire.

"3. Other agencies, such as fire pails; extinguishers, etc.; auxiliary boxes; watchman and watch-clocks; standpipes; hose-racks and roof nozzles; private fire department.

"4. Discipline of tenants and upkeep of appliances, to insure instant efficiency, involve:

"Fire drills, and inspection and maintenance of protective appliances.

"Sprinklers have been called 'the greatest economic invention of the present generation.' Heretofore used only in non-fire-resisting buildings, their use is now gradually extending to a wide range of fire-resisting structures, not so much on account of the protection directly afforded the buildings as in recognition of their great value in controlling incipient fires in the stock and contents. A broad view of fire protection should consider safeguards almost as important as fire-resisting construction per se, as any means which tend to extinguish or limit fire are of incalculable value."

After the horrible Asche fire in New York City, Superintendent Stewart recommended:—

1. A fire drill and private fire department should be organized among the employees of all factories to prevent panic and extinguish fires. The plan of organization outlined in the recommendations of the National Fire Protection Association should be used as a guide for this purpose.

2. All stairways, or a sufficient number of them, should be located in fireproof shafts having no communication with the building, except indirectly by way of an open-air balcony or vestibule at each floor. Hose connections attached to standpipes should be located on each floor in the stair towers for public or private fire department use.

3. Stairs, if any inside the building, and elevators, should be enclosed in shafts of masonry and have fire doors at all communications to floors.

4. The provisions ordinarily necessary for fire escape towers might be somewhat modified in buildings equipped with a system of automatic sprinklers installed according to the standards of the National Fire Protection Association.

5. Present buildings with inadequate fire-escapes should be provided with automatic sprinklers and smoke-proof stair towers, but additional outside fire-escapes passing in front of, or near, windows, should be discouraged.

6. Automatic sprinklers should be installed in all buildings to control a fire and thus prevent it from spreading rapidly from floor to floor by way of outside windows. The use of wire-glass in metal frames for all exterior windows would also retard such vertical spread of fire, but not so effectively as a complete equipment of automatic sprinklers throughout the building.

A wet-pipe system is considered to give much better protection against fire than the very best dry-pipe system, and for this reason dry-pipe systems should be used only for rooms or buildings which it is impracticable to warm during cold weather.

If an automatic sprinkler fails at time of fire, the neighboring heads will usually check the fire. If a dry-pipe valve fails, every sprinkler becomes useless, and the ruin of the whole building may follow. Furthermore, with a dry system, water does not reach the fire as promptly, on account of the air in the pipes.

FIRE ESCAPES.

Fire escapes may be located either on the interior or exterior of a building, but in either case three requisites are necessary, viz.:—Safety, unobstructed outlet, and access to the roof.

The best type of interior fire-escapes is the so-called Philadelphia Vestibule type of Tower Stairs, which consists of a stairway enclosed in walls of brick or other approved fire-resisting material, and isolated from the several floors of the building, except for an exterior balcony at each floor level, which forms a means of communication through the open air between the stair towers and the interior of the building.

Exterior fire-escapes are generally inefficient, especially when built so that they pass windows, unless the latter have metallic frames and wired glass. If they must be used they must be in the form of stairs, and never in the form of ladders, because they are never used except in case of panic or danger; are at best of light construction, and because of their unsightliness are generally placed in inconspicuous locations rather than where most serviceable, and especially because of their inadequate capacity. If they must be used, they ought to be in the form of "straight runs."

Fire-escapes.—Stairs should not be steeper than 45 degrees, balconies not less than 4 ft. wide, entrance door to be on floor level, doors or window openings onto or under fire-escapes to be metal covered and wired glass.

OUTSIDE HOSE—COTTON, RUBBER LINED.

For use on the yard hydrants of the ordinary building, unjacketted cotton, rubber-lined hose is recommended. Specify that it be guaranteed "conformable to specifications of Associated Factory Mutual Fire Insurance Companies."

For nine-tenths of the yards the above hose is preferable to the thicker and heavier jacketted hose used by the city fire departments, as it is easier to handle and more quickly dried and more economical for the consumer.

By purchasing only the best, and giving it the small amount of attention suggested, the greatest practicable durability will be assured.

Experience has shown that a good cotton rubber-lined hose, properly cared for, will frequently last ten or even fifteen years.

No hose smaller in diameter than $2\frac{5}{8}$ inches should be used. The actual inside diameter of the so-called $2\frac{1}{2}$ -inch Underwriter hose is $2\frac{5}{8}$ inches.

INSIDE HOSE—UNLINED LINEN.

For fire hose to hang up in dry, warm rooms or stairway towers of textile mills, corridors of office buildings, etc., we recommend unlined linen hose. Specify that it be "guaranteed conformable to the specifications of the Associated Factory Mutual Fire Insurance Companies."

It costs less than half as much as good cotton rubber-lined hose, and if not used will last two or three times as long. Its chief value is for short lines for brief use inside the mill, and it is best on account of its superior lightness, compactness and convenience for use by one man alone, and because there is little or no chance of its becoming stuck together by the ordinary heat of the rooms.

If possible, the stairs and elevators should be separated. Each building should have at least two stairways remote from each other and enclosed in fireproof shafts with fire doors on the several floors. No point to be beyond ninety feet from the stairway.

All stairways should be enclosed in fire-resisting walls, such as brick or concrete, which should be rigid for the proper mounting of free doors, and stable to prevent damage on the stairs, caused by falling partitions.

If glass must be used in these partitions it should be mild glass set in cast iron.

Stairways should be fireproof, and if marble or slate treads are used, cast iron sub-treads or platforms under the marble or slate should be used.

Experience and tests have shown that for effectiveness, reliability of operation, durability and cost, the tin-clad fire doors with wooden cores are best. The horizontal sliding type takes up the least room and has the simplest closing device, the single

swinging door is the next most desirable, and swinging doors in pairs are least desirable. Exit doors should be of the swinging type opening outward, this arrangement being already required by ordinance in several States. In hospitals and other public institutions every consideration of design or construction must be subordinated to that of safety.

Boiler and storage rooms should, however, invariably be cut off from the balance of the building by thorough fire-resisting walls, preferably brick or concrete, with as few openings into the rest of the building as possible. These openings should be provided with automatic self-closing doors.

If possible the floors above these boilers should be of fire-resisting construction, and if of wood, the spaces should be filled in solid with hollow tile, concrete, mineral wool, etc.

Many reputable construction companies are willing to install a sprinkler system at their own expense, carry it until the reduced premiums pay for it, and then deliver it free and clear to you.

Items

WELLESLEY HOSPITAL, TORONTO

THE Wellesley Hospital Training School for Nurses, Toronto, held its first graduating exercises on October 15th. Sir William Mulock, President of the Board, acted as chairman. The Rev. Alfred Gandier, D.D., gave the opening prayer, and after a few brief remarks from the chairman, he asked for the report of Miss Elizabeth G. Flaws, superintendent of the hospital. A summary of the three years' work was given by Miss Flaws from the opening of the hospital on August 26th, 1912, up to the present.

The Venerable Archdeacon Cody delivered the address to the graduates.

Lady Hendrie distributed the diplomas and school pins.

The Sir John Eaton Scholarship (senior year) for general proficiency, went to Miss Mina Ferguson, of Sault Ste. Marie.

The Herbert A. Bruce Scholarship for proficiency in operating-room technique was won by Miss Ruth Downey, Whitby. When awarding the prize, Colonel Bruce told of the high regard in which Canadian nurses are held back of the firing line. After weeks in the various hospitals at the front, he could say that nurses trained in Canada were the best. He also stated that Canadian hospitals were well equipped and we have no reason to be ashamed of them. Just before he left he was told by one in authority that there are in the Canadian and British hospitals 45,000 empty beds. In every way Canada is doing her share adequately and well.

The Sir William Mulock Scholarship in the intermediate year, for general proficiency, was won by Miss Helen Caruthers, Toronto, and Miss Clara Young, Cochrane, both being equal. The same thing happened in the Sir Edmund Osler Scholarship, junior year, for general proficiency—Miss Mabel Foster, of Bloomfield, and Miss Hazel MacInnes, Lindsay, being equal. The donors presented the prizes and announced that

instead of splitting the award they would double it, so each young nurse received the full reward.

After singing the National Anthem the guests were asked to remain for a cup of tea. Tables in the sun parlor and the library were beautifully decorated with flowers, and the graduates received the congratulations of their friends. The graduates are: Misses O. Edna Bastedo, Toronto; Ruth Rogers Downey, Whitby; Ethel Mary Hogaboom, Toronto; Margaret E. Duncan, Toronto; Jeanette Simpson, Brucefield; Mary Wilimina Ferguson, Sault Ste. Marie; Anna M. Stedham, Oshawa; Laura K. Stinson, Toronto; Gladys Burns Herod, Toronto; Clarissa Chapman MacNeill, Toronto.

HAMILTON'S NEW HOSPITAL

THE cornerstone of Mount Hamilton Hospital was laid on 24th September by His Honor Sir John S. Hendrie, Lieutenant-Governor of Ontario. The Mayor, Controllors, Aldermen and Hospital Governors were present. Mr. T. H. Pratt, Chairman of the Board of Governors, presided. He explained that after a good deal of discussion the mountain site had been agreed upon.

Sir John expressed his gratitude at the honor that had been shown him by the Governors and the city in being requested to perform this duty. He, as Mayor of Hamilton, knew what important work had been done at the City Hospital, and congratulated the Governors upon it. He stated that Hamilton's Hospital was different from many others in respect to its upkeep, the city paying for this instead of its being done by private subscription. He congratulated the city upon the site that had been chosen, and said it was one of the finest in Canada.

Mayor Walters congratulated the Governors upon the choice of site, and the hospital staff upon the work they had done. He hoped that the poor as well as the rich would be always welcome at the institution, as without the spirit of Christ being in it the place would be a failure.

Hamilton is to be congratulated on the start made towards the erection of an up-to-date hospital. It has long been known

that the old hospital had outlived its usefulness. On the high site chosen the purity of the air is assured; and the spacious grounds will permit of new buildings as demand arises.

NURSES HOME OPENED FOR OSHAWA HOSPITAL

OSHAWA has long been proud of its modern and complete hospital, but the beautiful and modern up-to-date Nurses' Home, which was formally opened October 29th, includes every comfort and convenience for the nurses of the Oshawa Hospital, the building having been completed within seven months by the Hospital Board through the active assistance of the Auxiliary. Miss McWilliams, who has been the Superintendent for the past seven years, and the Auxiliary members received during the afternoon.

EDITH CAVELL HOME FOR NURSES PLANNED

FIRST in the field with a tangible plan for an Edith Cavell memorial in Toronto is the Western Hospital. At a meeting of the Ladies' Board on November 1st, it was decided to build a nurses' home in connection with the hospital, and to call it the Edith Cavell Home for Nurses. It will be located at the corner of Bathurst Street and Rosebery Avenue, on the hospital grounds, adjacent to the main building. Plans and ways and means have, of course, not yet been determined.

HOSPITAL SUPERINTENDENT RESIGNS

THE Governors of Kingston General Hospital have accepted the resignation of Dr. D. A. Coon, as Medical Superintendent, and appointed Dr. M. F. Coglon, Acting Superintendent.

Book Reviews

Fever-Nursing. By J. C. WILSON, A.M., M.D., President of the College of Physicians, Philadelphia. Eighth edition, revised and enlarged. J. B. Lippincott Company, Philadelphia and London. For the use of nurses.

This little book was first published in 1887, and since then the author says in his preface, has required no less than seven revisions, the last one being especially designed to meet the conditions induced by the war and by the widening of the nurse's sphere.

There are seven chapters, dealing with the various classifications of fevers, their effects on the organs, the care of the patient's body, and then with each fever as it differs from the others.

The qualifications of the nurse are, as usual with most authors, enumerated in the same chapter with the details of dusting and ventilation.

Quite a long description of the various methods of fumigation is given, despite the latest accepted view that it is useless.

The book is well illustrated with plates and charts. The description of the treatments is clear and good, but it might be added, when giving cold packs or other treatments that depress, to have on hand the proper stimulants to prevent collapse.

It must again be remarked, as regarding many other books written by physicians for nurses, that the successful text-book is the one in which the writer takes the attitude and viewpoint of the nurse, for instance in the chapter on enteric fever, relative to perforation or hemorrhage. The nurse must be told how to anticipate these conditions, and what to do, when she fears they have happened.

More might be said, about vaccination, since it is a vexed question with the laity, on account of the outbreak of tetanus here and there, due to dirt and exposure to the germs from horse stables. The book is, however, an excellent reference book for the nurses' shelves.

The Smile, and How To Add Ten Years To Your Life. By
S. S. CURRIE, Ph.D., Litt.D. School of Expression Book
Dept., Copley Square, Boston, Mass.

These two small volumes form attractive and readable hand-books for the rapidly enlarging circle of readers interested in the new psychology—the revelation of mental and spiritual values in common things and the way to attainment of the same.

The first named volume deals with the place of the smile in human expression, its quality, its effects, its possibilities of development. The author wisely asserts that while a sense of humor may and should be cultivated, the smile develops and improves only as the character enriches and mellows.

The companion volume lays down a common sense method of living in such fashion as to make the most of life from the standpoint of long and healthy living. Chapters on physical exercises, respiration, correct posturing, work, play, and sleep, summarize the best and latest knowledge on these points as factors in right daily living. The writer deals with his subjects succinctly; the little books are bright, distinctly readable, and full of pithy suggestion.

The Education of the Will. By JULES PAYOT, Litt. D., Ph.D.
Translation by Smith Ely Jolliffe, M.D., Ph.D. Funk and
Wagnalls Co. New York and London.

The fact that this volume, published first in 1893, is now in its twenty-seventh edition is sufficient testimony to its stable value in psychological literature. Many volumes of similar nature written twenty years ago are now hopelessly obsolete by reason of the rapid advance of knowledge in the science with which they deal. But this book has remained always in advance of development along the line of its teaching, and fills to-day an urgent need of the awakened public. Psychology is not only rapidly enlarging its place and importance in medical therapeutics, but is becoming more or less to be appreciated by the common people as a science dealing with individual every-

day well-being. Therefore, readable, understandable, frank writings such as these on so vital a topic are of far-reaching benefit, and the demand for them is growing daily.

Monsieur Jules Payot writes chiefly concerning the adult, or at least of and for the adolescent and early manhood—that season when the world is full of appeal, enthusiasm is strong, and the will is brought continually into conflict with impulse. The book brings home the vast pity that education of the will, as an art, is not set to simple methods in the public school curriculum of our lands. In the light of these lucid chapters it seems most essential that knowledge pertaining to the education of the will should be imparted in childhood, and that self mastery and the way to reach it should stand first in school studies.

The book, in type and make-up is a tribute to the Funk and Wagnalls press.

DEMPSTER'S

is appreciated by discerning people because—

Only the best materials are used,

Of our exclusive process of fermentation,

Of the exactness of manufacturing methods, assuring bread and buns of uniform excellence,

The greatest cleanliness is observed in the manufacture and distribution.

STAFF^{OF} LIFE

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GRAND PRIZE
Panama-Pacific Exposition
San Francisco, 1915

GRAND PRIZE
Panama-California Exposition
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BAKER'S COCOA

is as delicious in flavor as it is high
in quality and absolute in purity.

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DORCHESTER, MASS.

NEW HOSPITAL APPLIANCES, PHARMACEUTICAL PREPARATIONS, ETC.

A Letter

DOCTOR.—When consulted by patients on the important question of the laundry, won't you bear in mind the following facts regarding Taber Laundry Works, 444 and 446 Bathurst Street, Toronto: Our laundry is one of the most up-to-date and best-equipped institutions of the kind in Canada. Every department is conducted along the strictest sanitary lines. Each and every piece entrusted to us is not only washed but sterilized and dried with super-heated air, rendering impossible the transmission or existence of germ life. Taber Laundry Works exercise also the greatest care in not taking work from houses or places where there exists contagious disease. Our patrons are protected in this way from danger. It has been our rule for years that each and every customer receives personal attention. Telephone College 8333 and 5143 for our van service. Note.—In the past few years laundry chemists and engineers have developed the modern power laundry so that it now ranks high in the public service. Sanitation has been the mainspring of their efforts. We invite professional men and visitors to call on us. For the above reasons, we ask the endorsement of physicians.

An Effective Oral Prophylactic

PHYSICIANS, when consulted by patients who suffer from pyorrhea should bear in mind that Pyorrhoeide Powder is a most effective remedy. It retards tartar formation and allays inflammation of the gum. Medical men are respectfully requested to try it and see for themselves.

Tarbox Brand Dusters

MESSRS. TARBOX BROS., whose advertisement started in our October number, advise us that their Old Country orders are increasing in size and frequency, notwithstanding the war conditions.

Their chemically treated dry-dusting mops and dusters seem to be especially designed for the conditions that prevail in the Old Land—the birthplace of polished and tiled floors.

The dusting problem may not be treated in the really refined home as in public places where the dirt can be merely controlled, by causing it to adhere to the floor through smearing with oil compounds.

The discriminating housekeeper is content only with the elimination of dust—sanitation so dictates.

The Spatula is Mightier Than The Sword—

especially when wielded by the Physician, in Pneumonia, for example, to spread on previously verified and properly heated



"About five per cent of all physicians still adhere to the theory that pneumonia, being a so-called self limited disease, admits of no active treatment, but requires only good nursing and patient watchfulness. The other ninety-five per cent, out of their individual and collective experiences, are convinced that, with prompt treatment of the right kind, pneumonia can be often greatly lessened in its severity, shortened in its course, or (as some affirm) actually aborted. We are of the opinion that about seventy-five per cent of the physicians believe there is no single or similar remedial measure which equals Antiphlogistine in its prompt effectiveness in the treatment of this disease."

(From Pneumonia Booklet sent on request.)

Physicians should WRITE "Antiphlogistine" to AVOID "substitutes"

"There's Only One Antiphlogistine"

THE DENVER CHEMICAL MFG. CO.
MONTREAL



Tarbox-brand dusters—chemically treated with a germicidal salts that produce just sufficient dampness to hold the dust while working—are a boon to present day needs and efficiency.

With each day's dusting they produce that sheen to polished floors so pleasing to the fastidious housewife.

Stewart's Duplex Safety Pins

How often in the day duties of the hospital nurse is trouble experienced with certain makes of safety pins, through the head of the pin or the coil being unprotected and catching in the bandage or gauze? We would hardly venture an answer to this. Surgeons and nurses will welcome for use in the hospital or in their obstetric bag Stewart's Duplex Safety Pins. They are made of a superior quality of brass wire and will not bend or unfasten easily. *Both the head and the coil are absolutely protected* by guards, so cannot catch in the clothing. They are also rust proof, and therefore particularly suited for wet dressings. They are packed, specially for hospital use, in five gross boxes.

Borden's Milk

PHYSICIANS will be gratified to know that, in prescribing Borden's milk, they have the best interests of their patients at heart, as proven by the following analysis:

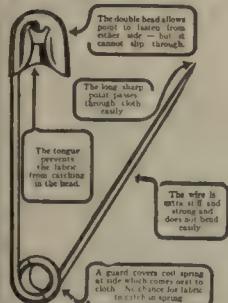
	Per cent.
Fat	9.50
Albuminoids (Protein)	7.84
Milk Sugar	} Carbohydrates
Cane Sugar	
Lactic Acid	
Saline Matter (Ash)	1.68
Water	27.31
	<hr/>
	100.00

Dragees Gelineau

PHYSICIANS who are puzzled in the treatment of epileptic cases should try Dragées Gélinau. They are composed of bromide of potassium, arsenic and picrotoxine, and have been found especially effective in those cases of "Fits" that do not yield to other remedies. They are procurable through any wholesale drug house, or from the Canadian agents, Roujier Freres, 63 Notre Dame Street E., Montreal.

**Send for Free Samples
of Stewart's Duplex :**

Stewart's Duplex Safety Pins



MADE of superior higher grade of brass wire. Will not bend or unfasten easily. Both head and coil are absolutely protected by the guards. Rust-proof. We manufacture all grades and sizes of Safety Pins. Pack them especially for hospital use—5 gross in a substantial box—loose—ready for use at a moment's notice.

Samples and price list free on application.

Stewart's Paragon Brand "bank" or toilet pins, packed in handy, half-pound boxes, are indispensable in the modern hospital.

CONSOLIDATED SAFETY PIN CO.

BLOOMFIELD, N.J., U.S.A.

EPILEPSY Dragées Gélineau

DRAGÉES GÉLINEAU are an antineurine agent of the most rational type, being an association of Bromide of Potassium, Arsenic and PicROTOXINE. The Bromide diminishes the reflex sensibility of the nervous system and the congestive predisposition of the cerebrum in **EPILEPSY**. The PicROTOXINE has its action on the convulsive and spasmodic tendencies of neurotics, and, finally, the arsenic is the repairer of the nerve cells.

It is with perfect frankness, and with the utmost sincerity that, without pretending to cure every case of Epilepsy, we recommend to the medical profession **GÉLINEAU'S DRAGÉES**, which have given to their inventor the most complete satisfaction for 80 years and have earned for him the gratitude of numerous sufferers. **GÉLINEAU'S DRAGÉES** offer to the practitioner a superior weapon, giving him the possibility of a triumph in ordinary cases, and in all cases the certainty of at least a marked improvement.

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Gail Borden Eagle Brand Condensed Milk

Borden's Evaporated Milk and Borden's Malted Milk

HAVE BEEN AWARDED THE

GRAND PRIZE

HIGHEST AWARD

BY THE SUPERIOR JURY OF THE

Panama-Pacific International Exp.

AT SAN FRANCISCO

The New Premises of The J. F. Hartz Co., Limited

THE J. F. HARTZ CO., LIMITED, have taken possession of their new building, 24 and 26 Hayter Street, Toronto, which is "just around the corner" from their recently vacated premises on Yonge Street, and, while not completely settled owing to delay in installing the new fixtures in the ground floor, "business as usual" is proceeding on the first floor.

The history of this firm shows remarkable progress, having started but sixteen years ago as a branch house it was, fifteen

months later, organized as an entirely independent Canadian company, having no connection with any other house and managed entirely in Toronto. The first premises occupied consisted of a single floor at 2 Richmond Street E. These were quickly outgrown and more commodious premises were purchased at 406 Yonge Street which, it was hoped, would furnish ample accommodation for many years to come. A short time only was necessary, however, to demonstrate the inadequacy of even those premises, and the



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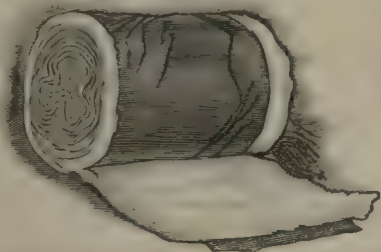
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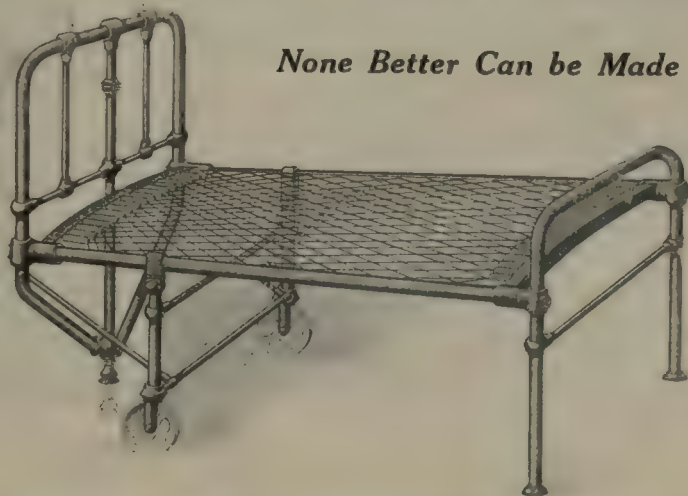
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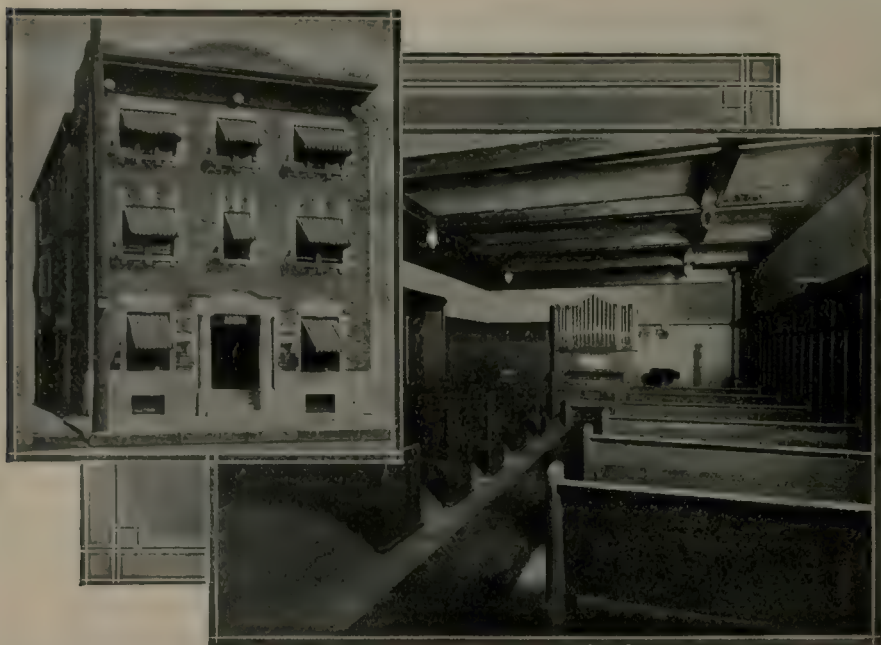
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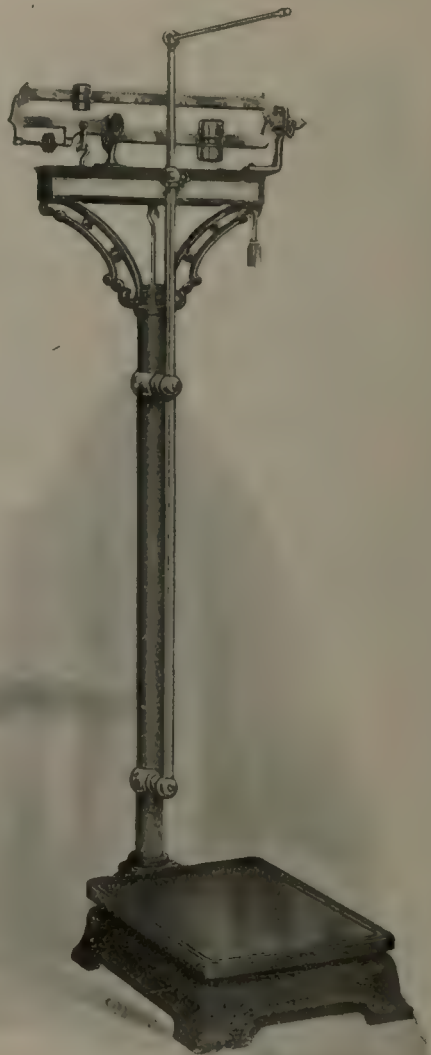
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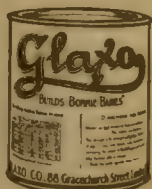
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